AMERICAN RAILROAD JOURNAL,

AND

IRON MANUFACTURER'S AND MINING GAZETTE.

ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 105 CHESTNUT STREET, PHILADELPHIA, AT FIVE DOLLARS A YEAR, IN ADVANCE.

SECOND QUARTO SERIES, VOL. IV., No. 4.] SATURDAY, JANUARY 22, 1848. [WHOLE No. 605, VOL. XXI.

PRINCIPAL CONTENTS.

AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 105 CHESTNUT ST. PHILADELPHIA.

Saturday, January 22, 1848.

Southwestern, Ga., Railroad.

We commence, in this number, Mr. Holcomb's report of his recent survey of this railroad. We deviate in this instance somewhat from our usual course, in publishing the reports of preliminary surveys—which are not always as useful to others as to those immediately interested in the work—because we can give a map with it showing its connections, and contemplated extensions and branches. It will be seen, by referring to the map, that it is contemplated, by this road, and the Central road, to open an easy and cheap communication between Savannah, Southwestern Georgia, Southeastern Alabama and Florida — probably the best cotton growing region of those three States. It will not only enable the planters of that region easily to reach a shipping port, but will also enable them, when the road shall be opened from Chattanooga, on the Tennessee river, to Nashville, and the Ohio, to get their supplies from that region at a much cheaper rate than they now get them—and thus enhance the value of their crops and lands to much greater amount than the cost of all these works.

The distance from Macon to Fort Gaines is found to be 140 miles, and the estimated cost of the work complete, ready for the machinery, with a rail of 60 tons to the mile, is $1,548,964 23, or $11,064 03 per mile—and with the outfit of 15 locomotives, cars, tools and machinery for shops, the cost is estimated at $1,773,264 23, or $12,666 17 per mile.

It appears that the bluff at Fort Gaines is about 160 feet above the river, which gives a fine opportunity for the construction of a *suspension* bridge, by which the navigation of the river will be wholly unobstructed.

In speaking of river navigation, Mr. Holcomb ventures a prediction which may, by some, be deemed as extravagant as was the remark of the celebrated engineer, *Brinley*, who said that "rivers were made to *feed* canals." He says—in speaking of the navigation of the Chattahoochee—"it is, however, like most other of the rivers of the country, ultimately destined to yield the palm to the superior speed, certainty and safety of that great revolutionist, the railroad. If I might be permitted for a moment to wander so far from the subject, I should run but little risk of not being borne out by the fact, were I to predict, (and the prediction is therefore hazarded) that the mighty Mississippi itself, at least for all purposes of travel, will be deserted. We have but to compare the distance by land and water, from New Orleans to Louisville, for instance, to show the probability of this event. From New Orleans to Louisville by water, is fourteen hundred miles, and by land, six hundred." Yet, bold as the prediction may be deemed, it will be *literally* verified, and that, too, at no very distant day.

We shall give the remainder of the report in the next number of the Journal.

The Iron Trade.

We find in the Railway Chronicle of 18th December the following in relation to the iron trade.

"*Birmingham, Dec.* 10.—From the prevailing depression, the iron men of South Staffordshire, as well as the furnace men engaged in the several large firms around Dudley, have received notice of a reduction of 20 per cent. on their wages, and the wages of the colliers will fall to 4*s.*, and in some cases to 2*s.* 9*d.* per day. Short time is generally being adopted throughout South Staffordshire, and many iron masters have determined to suspend operations altogether for the present. At a meeting of iron masters held at Wolverhampton on the 8th inst., a resolution to the above effect was unanimously agreed to, so that the reduction of wages will become general throughout South Staffordshire.—*The Oak Farm.*—The total liabilities are upwards of £260,000, the whole of which is guaranteed by the old firm, except £36,000, the old firm holding as security the works. The assets, including machinery, stock, and book debts, are over £100,000. The liabilities of the new firm are less by £100,000 than when the dissolution of partnership took place in 1845.—*Glasgow, Dec.* 10.—The market for pig iron is still inactive, and until we get the present season over, we cannot look for any improvement. Our quotations are dull at 48*s.* 6*d.* for No. 1, 47*s.* 6*d.* for mixed Nos., and 46*s.* 6*d.* for No. 3. cash. The *North British Railway Gazette* gives the following shipments of pig iron in November last:—From Port Dundas and Kirkintilloch, 16,111 tons; from Broomielaw, 16,780 tons; in all 32,841 tons.

"The vessel *New World*, from New York, has brought, in addition to other cargo, 149 tons weight of railway iron, whether an original importation, being consigned to order, or returned British iron, not being specifically mentioned. The vessel *J. R. Skiddy* also arrived from New York, has brought in addition to a large cargo, comprising every variety of American provisions—822 bars of railway iron, under similar circumstances and consigned to order. Other arrivals have also taken place by the vessels just arrived from the United States, and are of interest, in so far that they did not previously form a portion of the cargoes of vessels arriving from that quarter of the globe."

We do not quite understand this returning of railroad iron—was it sent out here in search of a market, or what does it mean?

In the same Journal of 25th December, we find the following, viz:

"*Glasgow, Dec.* 27.—There are no transactions of importance, so as to make a quotation; it is merely nominal, at 47*s* for mixed Nos.

"Two important meetings have been held during the week, in furtherance of the movement towards a general reduction of wages. At the one in Birmingham, says the Birmingham Gazette, on the 15th, attended by nearly all the manufacturers of iron round Wolverhampton, Dudley, Stourbridge and Birmingham, it was decided that to puddlers notice should be given for a reduction of 1*s.* 6*d.* per ton, and to all other men employed in mills and forges, 20 per cent. from their present wages—being a similar step to that already taken with those employed at the blast furnaces, who are in many instances working at the reduced rates. The other meeting was held at Stourbridge on the 17th, and composed a very large majority of the coalmasters in the district. A resolution was passed that notice should be given on the 18th to thick-coal colliers for a reduction of 1*s* per day, and, where it had not been previously given to the men engaged in getting thin mines and ironstone, 9*d.* per day."

We regret to see this state of the trade, as it will be likely to affect, unfavorably the manufacture of American iron.

English Poor Rates.

The Railway Record says that "the average contribution by the English railways to the local and parish rates every year amounts to five per cent. of their earnings, estimated at nearly £8,000,000 a year—in round numbers. £400,000 towards the £5,000,000 annually raised for the poor—that is, 1-15th of the total rates, and fifty times what the same quantity of land contributed before its conversion to railways."

At a court of inquiry, held at Driffield last week, to assess the amount of compensation to be paid for land at Driffield, required for the Malton and Driffield Junction railway, it was stated by Mr. Atherton, Q.C., that the whole of the traffic between Malton and Driffield had been conveyed on the back of a donkey.

Atmospheric Railway--South Devon.

The Plymouth, England, Herald of November 15th, says, "we have great pleasure in stating that, on Tuesday last, the first experimental train was run to Newton; and though it was but fair to anticipate that some difficulties might arise in the trial, from water which must have accumulated in the pipes, and from other causes incidental to a first attempt, yet the distance was accomplished in grand style, without the least difficulty or delay.

"The carriage was started from Teignmouth at five minutes before 10 a.m., and at eight minutes after 10 it arrived at Newton, having stopped at Wear engine house four minutes. The train came back in twelve minutes, having stopped four minutes at Wear on returning. The distance is five miles.

"Our readers who take an interest in the progress of practical science, will also be glad to hear that the trains from Teinmouth to Exeter—four each way—propelled by atmospheric power, ran most admirably, keeping their time far more regularly than those driven by locomotives; and the most perfect confidence is felt as to the system finally superseding the now common mode of traction.

"The power is exceeding great, and it is said that light trains could be propelled without difficulty at 60 miles an hour. The engineer, who ran for the first time to Newton, had the breaks on down and up. We trust to be enabled to announce in a short time that the locomotive engines are to be dispensed with on the South Devon line as far as Newton.

"The engine houses on the line towards Totnes, and at the stations, will soon be finished, and, as we stated a few weeks since, the tubing, of a large calibre, is being laid, and not the least doubt is entertained that the steep gradients on that part of the line will be run over at a swift pace, with much ease. If these expectations be realized, of which we see no doubt, the triumph of Mr. Brunel and Mr. Samuda will be complete, and another 'great fact' will be established in the scientific world—the triumph of air over steam."

Tunnel Under Liverpool.

The Liverpool Mercury says that "this gigantic effort of skill and labor, which is to run from Edge hill to the New North Docks, is likely to prove more expensive than was at first contemplated, and, at the same time, to be a great promoter of the sanitary condition of the town. From Byrom st, to Crompton st., a distance of about a mile, the cuttings have been difficult and dangerous, the workmen having to cut through the clay the whole distance they have yet proceeded, and to support the sides with the utmost care and skill, as required by the treacherous state of the earth. In some portions of this distance it has been found necessary to raise buildings, and open the earth to the level of the intended tramroad. This has been done from Byrom street, once the head of the pool from the Mersey to Fontenoy st. The remaining portion of the tunnel to Great Howard st. has been attempted to be cut underground; but such has been the ill success so far, that some of the houses, not only immediately over the cuttings, but at some distance from them, have given way, and have been rendered so dangerous that the inmates have been compelled to quit with short notice. Some of the dwellings have been so rent, that to live in them as they now are, would be extremely dangerous. It is therefore believed that the houses in the whole distance from Fontenoy street to Crompton st., comprising Banastre st., Henry Edward st., Marybone, Midghall st., Bispham st., Freemason's row, Vauxhall road, Gascoyne st., and Eaton st, will have to be ulled down."

Railway Expedition.

The Railway Chronicle, of November 27th, says, "as a feat of newspaper expedition, by the help of railways, we may notice that copies of the 'Daily News' of the 24th, arrived at Manchester, and were on sale by 10 15 A.M. The express which brought the papers left London at 6 A.M., so that the distance over the Trent Valley line was traversed in 4h. 15m., and the last 31 miles, (from Crewe to Manchester,) in 35m., including three stoppages. The 'Daily News' of the previous day laid upon the tables of the Exchange, at 3 P.M., a full report of a meeting held at Manchester the day before, (Mr. Villier's resignation), and which had not terminated till 5 P. M.; so that the short hand writer's notes had been transcribed, the copy had been 'composed,' the papers had been received from the printing machines, and a distance of more than 400 miles had been passed over besides, and all in 22 hours."

Locomotive Distance and Timekeeper.

A Mr. Fletcher has made an instrument for registering the distance travelled by the locomotive. The following description of it is from the Railway Chronicle.

"This instrument is constructed for ascertaining the distance, and time any part of the distance travelled over by the locomotive engine; it is placed in a situation where the engineer can readily have his eye upon it, or on a carriage for the guidance of the guard. The driver can thus at all times ascertain the speed of his engine, his distance to the next station, and his exact position on the line. A chronometer is also attached, showing railway time. It also registers on paper a description of the journey, the time occupied at each station, and the exact speed travelled during every mile. This paper may be taken off at the end of each journey, marked with the number of engine and date of year, and filed. It has a dial, the circumference of which is divided into the number of miles on the railway, and all the stations are correctly marked down at the proper distances from each terminus; while a finger, or indicator, points to the spot occupied by the engineer on the line. A smaller finger revolves once in two miles, by which the engineer can ascertain his speed. Another small finger revolves once in sixty journeys, of 10,000 miles, if necessary, to show the distance travelled by the engine during several weeks. Within the apparatus the speed and distance are registered, and this is effected by a separate wheel running on the rail, and not put out of working by breaks, or slipping, etc. The machinery is so arranged for any line, that the hand on the dial makes one revolution during a journey to the terminus and back."

Mails Between London and Paris.

We find the following, in reference to the mails between London and Paris, in the Railway Chronicle. It appears that the Londoners are not quite satisfied with their mail arrangements. They complain of a detention of *two hours* in the arrival of one of the daily mails. What would they say at a detention of *two or three* DAYS?

"Mr. Macgregor has been to Paris to accelerate the *postal arrangements*, but has returned, it is said, with only a partial success. The Morning Herald reports the following as the new arrangements.—Calais and Boulogne are to divide the honors of the mails—one mail a day each way is to be conveyed through Calais, the other through Boulogne. A morning mail will be despatched from London, via Dover and Calais, every day at 11 30 a.m., to reach Paris the following morning 4 30 a.m. The night mail from London is to start from London bridge at 8 30 p.m., and is to arrive in Paris at 10 30 a.m. next day. This mail is to go by way of Boulogne. There are to be two mails each day from Paris to London, the first of which is arranged to start from Paris at noon, and arrive in London the following day at 4 30 a.m., with the regular Dover mail train. This is to come via Calias and Dover. It is intended that the other mail shall leave Paris at 7 p.m., and arrive at London bridge by the express train at 10 30 a.m. next day. This latter mail is to be conveyed via Boulogne and Dover. Our contemporary observes, here is the mail leaving Paris at 7 p.m. made to arrive at London within about five hours of that which starts seven hours in advance of it, and it is to be thus delayed just because it suits the convenient arrangement of somebody that the mails should be driven about in the way proposed. The arrangement is an absurd one and will not long be tolerated. The Boulogne and Amiens is now open to within six miles of Boulogne, and on the principle that English indomitable perseverance would not allow further detention in the opening, so will the mails be accelerated to the full capabilities afforded by locomotives and marine steaming. Paris and London now extend their hands to each other—the full and cordial embrace cannot and must not be stifled. As a proof of what can be done, a party of gentlemen, among whom was Mr. Macgregor, started from Paris on Saturday, and reached London in 12h. 50m. The journey from Paris to Boulogne occupied 8h. 50m.; from Boulogne to Folkstone, 1h. 55m.; and from Folkstone to London, 2h. 5m.—There was no effort in accomplishing this—the train from Paris to Amiens was a slow one, and stopped at every station."

Upper Canada Mining Company.

We have heard much of this company, and its valuable locations, but have not before met with any thing definite. The following report of *T. W. Bristol*, superintendent of the company, will give a better idea of the extent and value of their locations than anything yet published. We find it in the American Mining Journal of 5th inst., together with the report of Carlos Cobb, principal officer, and P. Von Schneidau second officer of the company—but this will give a good idea of the region.

To Col. O. P. Dibble, Superintendent Upper Canada Mining Company:

SIR—Having completed my explorations for the season, I beg leave in accordance with your instructions, to submit to you the following report, as a summary account of my researches during the past season upon Lake Huron.

My examinations have resulted in the selection of three locations for the Upper Canada mining company, of 10 square miles each.

Spanish River Location is situated about ten miles west of the mouth of the river of the same name, and in the neighborhood of 120 miles east of Saulte St. Marie.

The rock formation is mainly composed of trap, greenstone, and altered slate; the former predominating on the islands bordering the coast, and the point of main land, known as the Little Detroit, which constitutes the eastern portion of the south boundary of this location. The greenstone and slate occur on the main land, the latter in the high mural cliffs which skirt the coast, flanked upon the north with greenstone, which continues with slight interruptions, to the north boundary of the tract.

Of the number of islands embraced within this location, three only are regarded of sufficient size to call forth a description of their mineral veins. The two greater have an east and west direction, extending nearly across the location with average widths of about three-quarters of a mile, and are elevated from 100 to 150 feet above the lake.—The remaining one will be found near the west boundary, running parallel with it, or nearly at right angles to the two former, with about the same elevation.

This island near the south end, is traversed with five well defined quartz veins, varying in extent from one to two and a half feet. In four of this number, the grey sulphuret and carbonate of copper alone prevail—the sulphuret occurring in small strings and minute particles disseminated through portions of the veins, while the green copper tinge, communicated by the carbonate of copper, appears throughout the entire width between the walls. The remaining vein referred to, is immediately upon the surface, producing yellow sulphuret and purple copper; the same specimens exhibiting both characters of ore, nearly and proportionately mixed.

The veins all occur in trap, and were found to preserve their uniform width when traced down the slope upon the west side of the islands, until disappearing in the deep waters of the lake. Two of these veins are connected nearly at right angles, by a feeder of one foot in thickness. Entirely traversing an intermediate vein at the junction, the matrix is changed from a white to a brown quartz, without any observable alterations in the mineral productions, both sides alike producing valuable specimens of purple copper.

The general course of these veins may be said to be east and west; although in tracing them easterly across the island, they were found to diverge towards each other at small acute angles, which if continuous would result in their intersection upon the larger of the two islands first mentioned, which is here separated only by a distance of 200 yards.

Their general course was continued across the island, where a handsome vein of quarts, four feet wide, was discovered, boldly cutting the cliff with an east and west direction.—This vein, I think, may be safely inferred as made up of all those above described falling into each other; and accordingly presents a favorable point for permanent operations.

About one mile easterly, following the south shore of the island, a vein of copper pyrites makes its appearance in a perpendicular cliff of trap, 40 feet high, exhibiting a well defined width of two and a half feet.

The matrix of the vein is made up of quartz and copper pyrites in nearly equal proportions; and the green copper tinge was observed to mark the rock in broad vertical bands, existing in proportions to that extent so as to furnish the prevailing color to the rock in the vicinity of the veins.

Owing to the peculiar position of this vein in the cliff, it was not deemed practicable to commence removing the ore with but two men, as a very considerable amount of labor must necessarily be expended before mining advantageously can be commenced.

This vein was traced easterly but a short distance, owing to the inequalities in the ground, and the surface being concealed by large masses of detached rock and vegetation. Westerly, it preserves its course along the margin of the lake, parallel with the course of the islands, entering the cliff a few rods north of the house which has been erected, and was traced nearly one quarter of a mile pursuing its uniform width and bearing.

The debris at the foot of the cliff is strewed with masses of detached veins and stones carrying the ores of copper; and the wall rock from whence the vein has been dislodged, is marked with wide belts of the copper tinge as above described.

Aside from those referred to, veins exhibiting about the same average width were discovered, producing the different ores of copper. The very marked relation these veins bear to one another, supercedes the necessity of a minute description of each; for a description of one may be said to be essentially a description of the whole.

A very striking similarity exists in their bearings; for in no instance of those regarded as true veins, was any material deviation from an east direction observed. This circumstance it is believed, taken in connection with their contiguity to each other, will be found to produce a great influence over their products.

In other mining districts, where veins occur isolated, or separated by great distances, without any connecting strings or feeders, they have in general failed to produce satisfactory results from mining. Upon the other hand, when a number of somewhat parallel contiguous veins appear, as in this instance, some of them very rarely fail to be productive.

No objection can be raised from the fact of their being upon islands; for they are of sufficient magnitude and elevation to possess all the advantages that could possibly be realized were they situated upon the main shore.

Upon the main land, five large quartz veins have been discovered, conforming in direction with those previously described, with thickness varying from four to eight feet. In three of these veins, the yellow sulphuret of copper was found, and in one, which was traced over a quarter of a mile, this ore was taken from portions of the vein elevated 100 feet above the level of the lake.

In their external characters, these veins may be said to bear a striking analogy to one which has been opened upon a location six miles east Where no mineral whatever was apparent upon the surface, a shaft was commenced, and at a depth of 12 feet a lode of copper, two feet wide was developed. These veins occur under the same geological relations; and so great is the identity existing between those of Spanish river and the one in question, that an experienced eye, familiar alike with each location, would fail to identify specimens from each point promiscuously arranged.

Experience in other mining districts have firmly established certain facts which lead to a direct understanding with reference to many of the contingencies in connection with copper lodes, and veins; and analogies for the solution of neighboring cases have been drawn with a degree of certainty seldom leading to unexpected results.

Shining argillite is found massive in this location. This formation is peculiar to some of the richest tin and copper mines of Cornwall. Small quartz veins were observed to traverse this rock, presenting external appearances worthy of further investigation.

The timber upon the Spanish river location is mostly of an inferior growth and quality—principally stunted spruce, pine, aspen and birch; the latter occupying the narrow belts of interval land occuring between the hills. Upon the west half of the location, a wide strip of wet, swampy land skirts the coast, clothed with cedar, spruce and tamarac; immediately in the rear of which, the hills slope away at a moderate angle, attaining an altitude, in four miles, of from three to four hundred feet.

Serpent river, which falls into the Lake about fifteen miles west, crosses near the northern boundary of this location, and will, it is believed, furnish all the water required.

But little arable land will be found upon this location; the islands for the most part support only a thin mossy soil, barely sufficient to conceal underlying rock. Upon the south side of Spanish river, three miles east, a wide belt of level land, a portion of which is now occupied by the Indians as their planting grounds, occurs, abundantly sufficient to produce all vegetables which may be required for the support of any mining force necessary to work the different veins.

La Cloch Locations. The two remaining locations will be found about thirty-five miles east of Spanish river, situated equally distant upon either side of the mouth of White Fish river, and embracing four miles in extent of coast.

The lateral lines take their course due north five miles, and from thence easterly, parallel with the general direction of the coast four miles, embracing a mineral tract of twenty square miles.

The "Wallace Mine" appears upon the coast about one mile west of the mouth of the White Fish river, near the centre of the west location, exhibiting one of the most favorable developments of copper ore yet discovered upon Lake Huron. The vein was first discovered by a peculiar depression which marks the surface, and the green carbonate of copper which characterizes the face of the rock throughout a width of eighteen feet.

It was subsequently continued west, across a small bay, entering a cliff of porphyritic tray, through which it was traced nearly half a mile—the yellow sulphuret of copper being taken at an elevation of one hundred feet above the water, as well as at every intermediate space where the surface was sufficiently exposed to indentify its existence. The width varies from nine to sixteen feet, the south wall being well defined and uniform, the north more irregular and sinuous in its course, giving rise to the changeable width before mentioned.

From the point where the shaft was sunk, westward, the matrix of the veins is composed of chloritic slate, which readily yields to the knife. The Indians use it as pipe stone, and the marks of their hatchets are seen upon the vein wherever it is exposed. Portions of the vein are divided transversely, with parallel lines of quartz, steatite and calcareous spar; these, again, in one or two instances, are intersected at right angles, with small veins of equal size, pursuing directions corresponding with the main vein; all alike carrying valuable quantities of yellow ore.

A shaft was sunk to the depth of six feet, which produced the ore sent you. At this short distance beneath the surface, an exceedingly favorable change was remarked in the mineral production of the vein. The ore was more thoroughly disseminated through the veinstone, and the nodules of copper were increased in size, frequently exposing several cubic inches of pure sulphuret. Should the same relative change characterize the lode in its descent, which, by the way, is highly probable, a depth of twenty feet will furnish ore in quantity and quality unequalled upon Lake Huron.

A short distance eastward of the shaft, a distinct change takes place—the veinstone is either entirely lost or overlaid by quartz.

The junction is plainly marked by a low cliff of quartz diagonally crossing the vein, in which both *cobalt* and *nicked* are found intermixed with yellow sulphuret of copper. These two minerals occur in small ramified veins adjacent to the southern wall rock, and present the first discovery of the kind of any practical importance made in this mineral district.

Aside from the occurrences of nickel and cobalt in the silicious vein-stone, the only marked alteration seems to exist in veins of pure sulphuret, instead of being distributed in prills or nodules as was observed in the vein where chlorine predominated.

The specific gravity of the ore of the "Wallace Mine" is very considerably beyond that of the ordinary sulphurets of Lake Huron; and by reference being had to the analysis of Professor Hadley, it will be found more productive than any of the ores upon the lake.

One great advantage this mine possesses over others is, the ease with which it can be worked. As an illustration of this, one drill, without sharpening, bored four feet of hole. Now, in veins where the matrix is composed of silex, two dozen are not unfrequently required, with four times the amount of labor expended to accomplish the same result. This is regarded as too important an item to be overlooked; as profitable mining to a certain extent, depends as much upon the ease and facilities afforded for working the veins, as in abundance of the ore.

In receeding from the coast, the country slopes irregularly away, presenting frequent bare knobs of granitic trappose rocks, both of which are traversed in an oast and westerly direction, by veins of quartz, affording superficial appearances worthy of further investigation.

This formation continues uninterupted one and a half miles interior, gaining an elevation of some three hundred feet, when, falling to the north at a high angle a deep valley is formed, through which a small stream, one of the tributaries of White Fish river flows, washing the southern base of the La Cloch mountains.

Immediately to the northward the mountains rise in abrupt, and precipitous ledges attaining an altitude of eight to nine hundred feet above the lake and presenting an exceedingly bold and rugged outline.

The base is clothed with a considerable growth of spruce, birch, and aspen, but from a point about mid-way up their sides to the summit, with the exception of whortle-berry bushes, which furnish abundance of fruit in their season, and here and their a stunted pine clinging to the crevices in the rocks, not a green thing appears upon their surface, the heights presenting as barren and desolate an appearance as may well be conceived.

At a point in the neighborhood of 300 feet above the stream, upon the south side of the mountain, and situated about two miles in a northerly direction from the "Wallace Mine," a bed of red hæmatite was discovered. This is said to yield the best quality of iron, and is not unfrequently used for polishing, under the name of blood stone, and at times has brought very high prices. It occurs upon a table or stair, and can be worked with great ease.

In following eastward near the base of the mountain, in a distance of one and a half miles, two veins were discovered—one of 10 and one of 16 feet. They both externally bear a striking resemblance to that of the "Wallace Mine," having parallel courses and veinstones of chlorine. Iron pyrites, which by the miners is called mundic, was found very abundant upon the surface, and in one instance particles of yellow copper were discovered, at elevations of 500 feet above the lake.

The La Cloch mountains are flanked on the north by a trap formation, as seen upon White Fish river, about two miles from the falls, and continues without interruption, as far interior as my examinations were extended.

The remaining location belonging to the company, lies immediately to the east, and adjoining the one above described. But a very short period was allotted for the examination of this tract; sufficient, however, was expended to determine the existence of three veins of yellow sulphuret of copper. They are found under the same geological relations that constitutes the prevailing rock upon the west location.

In addition to its mineral deposits, the company, in securing this tract, have the entire control of White Fish river, the mouth of which, it is said, furnishes one of the best fisheries on lake Huron—three feet of water it is said can be carried up the falls one and a quarter miles from its confluence with the lake. Here the river is contracted between high ledges of rocks; and in the distance of 100 yards, over three successive shoots falls in aggregate about 30 feet, affording one of the finest water privileges possible.

From the foot of the falls to the lake, the river flows between banks, elevated from 8 to ten feet, upon either side of which, hundreds of acres of white alluvial lands are spread out, which are susceptible of the highest state of cultivation, and will, when cleared, produce all the grains and vegetables necessary for the support of any required mining force.

This intervale land is now clothed with an exceedingly heavy and thrifty growth of sugar maple, with a few large scattering pines, quite sufficient for the supply of all necessary fuel and timber for building purposes. In short, few, if any of the mining locations upon either of the lakes, combine greater advantages, and which are likely to lead to successful mining, than are here furnished.

At both Spanish and White Fish rivers, there will be found the finest harbors, securely sheltered from all storms, and a depth of water sufficient for the safe admission of any vessel navigating the lake.

In the foregoing, I have endeavored to furnish an accurate statement of the advantages as well as surface description of the different veins embraced within the boundaries of the location which, by my recommendation, have been secured to the Upper Canada Mining Company.

Their appearance, in connection with the samples of ore furnished therefrom warrant me in believing, that no greater inducements are held out for the elistment of capital in mining enterprises, with an equal prospect of speedy return, than are to be found in the lands belonging to this company upon Lake Huron.

Of the interior comparatively but little is known. A large proportion of my time was unavoiduably taken up in the transmission of news to and from the Saulte Ste. Marie, and in the conveyance of provisions, tools, etc. It is therefore confidently believed that subsequent enquiries, and a more minute examination, will lead to the discovery of veins, equally as valuable as those already examined.

Here I beg leave to acknowledge the obligations I am under to my assistant, R. J. Gravernet, Esq., who, upon all occasions, has exerted every effort to forward the interests of the company.

Very respectfully, your ob't serv't,

T. W. Bristol,

Agent U. C. Min. Co., Lake Huron.

Hamilton, C. W., Nov. 25, 1847.

Southwestern Railroad.

Report on the Preliminary Surveys and Estimates for the Southwestern Railroad, from Macon to Fort Gaines, on the Chattahoochee river, and the Gulf of Mexico; with Branches to Columbus and Albany. By F. P. Holcomb, Civil Engineer.

Engineer's Office, S. Western Railroad,
Macon, November 27th, 1847.

To Elam Alexander, Esq., Chairman of the Commissioners, Southwestern Railroad.

Sir:—Having performed the duty of making the preliminary survey and estimates for the Southwestern Railroad, entrusted to my care, it becomes a further part of that duty to submit the following report:

Description of the Route.

The survey commenced in the Perry road, at station forty-nine of the line recently surveyed for the extension of the Central railroad to Columbus—being nearly one mile from the Market house in Macon, where that survey had its commencement. and a short distance beyond a small stream, known as Rogers' or Town branch.

From this point, the route, taking the di-

rection south twelve degrees thirty minutes west, leaves the Perry road to the right, as also the elevated and somewhat broken ground over which that road passes southward of Troup's Hill. This part of the line might be described as occupying the second low grounds, or levels, of the Ocmulgee river; being, however, not much less elevated than the ground on which the lower part of the city of Macon is situated. The ground occupied by the line continues of this character until a small stream is reached, known as Chestnut Branch—the line, in its progress to this point, passing through the plantations of Dr. Thompson, Mrs. Brown, Dr. Germon and Mr. Parker.

In crossing Chestnut Branch, an embankment of about thirty feet in height will be necessary, but not of such length as to render it a work of any considerable magnitude. From this point, which is about two and three-fourth miles from the market house, the line bears to the right, and attains the slope of the high ground, or table-land, and is conducted along it at the maximum rate of ascent (which will be alluded to hereafter,) until the summit of the table-land, in question, is reached, about half a mile to the left, or east, of Mr. Beddingfield's, and near what is known as the White Pond. In attaining this summit, a cut of twenty feet becomes necessary, but by passing the line through the pond, (which is frequently dry,) it is rendered of moderate length; and which need not have been particularized here, but for the fact that this cut, and the fill at the Chestnut Branch, comprise the heaviest work between the city of Macon and Tobasufkee, and which is sufficient evidence of the practicability of this part of the route, at a small cost.

The line passes out of the White Pond at a depression at its southern extremity, and soon falls into a hollow, making up from Wise's Branch, by which, and the branch in question, the line is conducted to the Tobasaufkee creek. The meanderings of the branch, however, render it necessary, having regard to proper alignment, to cross it at two different points.

The point at which the line reaches the creek swamp, is about two thousand feet, or a trifle over a third of a mile, below the causeway; and in its course across the swamp is nearly parallel to it, or south two degrees, forty-five minutes east. With reference alone to high water mark, an embankment across the swamp of from six to eight feet, would have been sufficient; but this matter required to be settled entirely by the grade, to support which, at the maximum which has been adopted, it becomes necessary to embank on the northern side of the swamp, to the height of twenty feet, which, near the middle, runs down to about eight feet, and again runs up on the southern side to twenty-five feet. The swamp at this point is found to be four thousand feet, or about three-fourths of a mile, in width. This is about eight hundred feet wider than the swamp proper, where it is crossed by the causeway; but if the second low ground, at that point, but slightly elevated above the swamp, and which would require to be embanked from eighteen to twenty feet, be taken into account, there is but little difference between the two crossings—while the former affords superior advantages to the latter in reaching the table-land on the southern side of the Tobasaufkee.

The line is carried, after leaving the swamp, up the hollow of a small branch coming into the creek at this point from the south, which has its head near the Hawkinsville road, about three-fourths of a mile from the toll-gate. From this hollow, the line passes by a moderate cut, into the east prong, or hollow, of Collins' Branch—which will be remembered as crossing Perry road, near the toll-house, and pursuing a parallel course with the road to the creek.

This latter stream seemed to hold out inducements for the line to pursue it throughout its whole length, and a careful examination of it was made with this purpose. In this event, the line would have crossed the swamp near the causeway; but while it was found by careful comparison, based upon actual estimates of cost, that this route had little or nothing to recommend it on that score, it was highly objectionable on the score of alignment. The examinations in detail, alluded to, of this part of the route, have been made since the return of the party from the survey of the main line, and with reference to the definite location of a portion of the line, for the purpose of immediate commencement of operations on the road. And it gives me pleasure to add, that a considerable force is now engaged in grading on this part of the line, having commenced on the 13th instant.

The skill, industry and perseverance, which so eminently characterize the gentlemen who have had the honor of first breaking ground in this important enterprise, are a warrant of the rapidity with which the work undertaken by them, will progress.

After crossing the Hawkinsville road, and attaining the east prong, or rather hollow of Collins' branch, for it is near dry, the line pursues it to its head, where the summit between the Tobasaufkee and Echeconnee is reached. In crossing this summit, a cut of moderate length, but about thirty-three feet in depth, becomes necessary; and which is embraced by that part of the line alluded to, as having been located.

From this point, the line pursues a nearly straight course to the Echeconnee, over ground highly flattering to the eye, being of a character similar to that traversed by the Perry road, between the two creeks; but which was found, perhaps, less favorable on an instrumental examination, than might have been anticipated—but which, however, presents no serious difficulty. Farther examinations will remove, it is confidently believed, whatever of an unfavorable character may attach to this part of the line.

The Echeconnee is reached about half a mile below the bridge, on the Perry road, and, as in crossing the Tobasaufkee, the height of the embankment is governed by the grade, without reference to high-water mark—to support which, both in the approach of the line, and its departure, an embankment of about thirty feet in height, will be necessary, though but about half the length of that in the Tabasaufkee swamp,—or a trifle over one-third of a mile.

At this point, and in attaining the summit of the table-land, lying between the Echeconnee and Mule creek, it was forseen from the result of the surveys for the Columbus extension of the Central railroad, difficulties in the way of an economical line, would present themselves, rendering in all probability, this part of the line the most expensive portion of the route, for the same distance; and the result of the preliminary survey has shown that these apprehensions were not without some foundation. The table-land in question presents features somewhat peculiar to itself—for while it is elevated two hundred and thirty-one feet, which elevation is reached but a short distance from the creek, it affords not a single tributary to the Echeconnee, by pursuing which, the table-land might be attained, from the mouth of Juniper creek, (which is too high up for the present purpose,) where one line (afterwards abandoned) of the late Columbus survey crossed the Echeconnee, to the junction of the last mentioned stream with the Ocmulgee.

The expedient of carrying the line up the creek, along the slope of the hill, was therefore adopted, until a sufficient distance could be attained, to overcome at our maximum grade, the elevation in question. For this purpose an embankment of thirty feet in the Echeconnee, as before alluded to, was assumed, and the line then carried up the south side of the creek, along the hill side, crossing the Perry road near Mr. James Glosson's, and leaving it to the left, until the summit is finally reached with a cut of forty-five feet, and about one-fourth of a mile in length, in the plantation of Mr. B. H. Gray. Without doubt, a more minute examination of the ground, than the time then at command would warrant, will lead to a considerable improvement in this part of the line. This point is two hundred and thirty-one feet above the creek, and five hundred and eleven above tide-water.

A short distance beyond Mr. Gray's, the line crosses the Fort Valley road; and leaving it to the right, takes the general course of what is here known as the New Rest road. It soon reaches the head of a dry hollow, nearly three miles in length, and very direct in its course, which is pursued in common by the line and the New Rest road, to Mule creek. After crossing Mule creek at this point, the line bears to the left, down that stream to near its junction with Mossey creek, leaving the somewhat elevated ridge of land which divides these creeks, entirely on the right. Some examinations were made with reference to carrying the line across the ridge in question; and although these examinations were not attended with entire success, still it is believed advisable, that they should be renewed previous to the final location of the road; as if successful, a saving in distance—perhaps not very considerable, however—would be effected.

Having reached Mossey creek, the line is carried up the valley of that stream, on the north or left side of it, to near where the creek is crossed by the New Rest road, where the line also crosses. Skirting along between the base of the hill and the edge of the swamp, for a little upwards of a mile, it is finally carried along the slope of the hill, at the maximum rate of ascent, crossing the Fort Valley road between Williamson Mimms' dwelling and mill. Here reaching a hollow coming into the creek from the south, it is conducted by it to the summit of the table-land on which Fort Valley is situated, which is attained with a cut of twenty-five feet.

The line, as will be perceived, is here on the right, or west, of the Fort Valley road. Continuing upon the same side, and not very distant from it, the survey is carried over favorable ground to Fort Valley.

At this place, and in its neighborhood, a very lively interest in the enterprise was manifested; and it may not only be expected to contribute largely to its construction, but also much towards its future support and prosperity, by the amount of business which will seek the road at this point.

Still keeping to the right, or west, of what now becomes the Traveller's Rest road, the line reaches Big Indian creek, near where it is crossed by the road in question, and crosses both the road and the creek at or near the same point. Big Indian is crossed with a fill of thirty feet, but the valley is hear so narrow as to render it a work of no considerable importance. The line then bears to the left, along the crest of the hill, bordering the creek, until a second hollow or valley, (formed by another prong) of Big Indian is crossed, about one mile from the first; when the line pursues, over ground admirably adapted to the purpose, a direct course to the head of Beaver creek.

From Macon to Big Indian, comprises the most difficult and expensive part of the line; though I would have the terms difficult, and expensive, understood as only used in comparing it with the remainder of the route, and as not applicable to that part of the line in fact, as the estimates for grading will show.

After crossing Big Indian, it became necessary to consider the best route by which to reach the Flint river. Two routes presented themselves. The first of these was by the valley of Beaver creek, which would conduct the line to the Flint, about one and a half miles above Traveller's Rest. The second was to leave Beaver creek and its tributaries entirely on the right, and skirt around upon the ridge, dividing the waters of Beaver creek from those of Big and Little Indian, Mill and Horse Head creeks. By pursuing this latter route, the survey might still have reached the Flint at, or near the mouth of Beaver creek; or might have dropped still lower down, reaching the Flint near Traveller's Rest, or below. A careful reconnoisance showed that the features of the country were such as to admit of a favorable line by this route, and the question, therefore, resolved itself mainly into one of distance; and as the Beaver creek line was believed to have considerable superiority on this score, other things being equal, it was of course adopted. The superiority of the Beaver creek route over the other, in point of distance, which had been at first a matter of opinion, was, in the further progress of the survey, placed beyond doubt.

Had the citizens of Perry, by some exertion on their part—but in which their neighbors of Fort Valley have so far excelled them—secured the route past that place, (and which, in my opinion, is the true route for the road, not considered, however, as a question of cost, perhaps, so much as which will afford the greatest revenue to the road when completed,) the latter route might have laid claim to the same preference on the score of distance, which has been awarded to the Beaver creek route in this instance.

By reference to the map, it will be observed that a more direct line would be obtained by crossing the Flint considerably above the mouth of Beaver creek; but the obstacles presented in the features of the country which would be traversed by such a line, were too many, and too evident, to warrant, it was believed, even to attempt. An elevated table-land lifts itself suddenly and boldly above the river, having its commencement a short distance below the point where the survey for the Columbus extension of the Central railroad reaches the Flint, and extending entirely down to the mouth of Beaver creek. A stream, known as Johnson's Mill creek, it is true, cuts its way through this table-land, and falls into the Flint river above Lanier—but their appeared to be but small hope of its affording a favorable, or even practicable line. Still I am not prepared to say that this subject will not deserve further examination—though I cannot promise much hope of success. Besides, this route would deprive Dooly county, in a great measure, of participating in the advantages of the work.

The route down Beaver creek, having been selected as the most eligible route to the Flint river, the line after passing near Mr. William Felton's, whose place is known on Mr. Bonner's map, as Marshallville, soon reaches the west prong of Beaver creek, and is carried along the east or left side of the creek, to the junction of the two branches, near Low's mill; where the west prong is crossed. The line is thence continued down the west side of the valley, over ground affording a highly economical line, to the entrance of the creek, into the Flint river swamp.

The first two and a half miles of the descent of the valley of Beaver creek, is made at the maximum grade. For the remainder of the distance, the grade descends with the easy inclination of the creek.

The line enters Flint river swamp about nine hundred feet above the bridge over Beaver creek, on the river road, and something over a mile from Traveller's Rest. The direction of the line is here westward, differing from its general course down the creek, which is nearly south. The change from the southern to the western direction is, however, gradual, and the sudden bend (almost or quite a right angle) shown on Bonner's map—and in justice to him and his excellent performance, I should say, on the district maps also—is not found to exist.

The distance from the point where the line enters the Flint river swamp to the run of the river, is a trifle over half a mile; and the whole width of the swamp, on both sides of the river, is but about nine-sixteenths of a mile. And the ground is found so singularly favorable, being a high, open and firm swamp, or rather hammock, that, taken in connection with the fact, that the width is less than either at the Rest ferry below, or Rushing's ferry above, it is almost a cause of wonder this point had not been selected as a site for a ferry.

The only unfavorable circumstances to which I have to allude, in reference to the passage of the line over the Flint river, is an unfortunate bend, or sweep, made by Beaver creek in the river swamp, which I fear will subject the located line, should this crossing be selected, to the necessity of crossing the creek twice. The line as run, leaves Beaver creek entirely to the left; but this subjects us to a curve in the swamp, which would probably be more objectionable than crossing the creek—especially as a considerable space will be required for the passage of the river in time of freshets; and it can make but little difference whether, as regards the expense, this occurs on dry ground, or is thrown over the run of Beaver creek, where the line comes in contact with it. An island of the river, which is a short distance on our right where the river is crossed, and which extends upwards for more than half a mile, is in the way of throwing the line to the right, so as to avoid crossing Beaver creek. This island is low, sandy and unstable, showing evidences of constant changes in the channel; and besides having to cross both channels, another disadvantage would arise from the fact, that they would, or at least one of them, require to be crossed quite obliquely. The whole distance across the swamp would also be increased.

To run so much to the right as to leave the island below, would throw us above the mouth of Buck's creek, which comes into the Flint on the west side, and involve the necessity of crossing that creek—besides lengthening the line.

The distance to the river is forty-eight miles and a half, which a located line will reduce to forty-eight miles at most.

A short distance from the river the high land is attained, and the line carried beyond the reach of freshets. The swamp was found to overflow about eight feet in the March freshet of 1841—the range of which was pointed out to us, and carefully noted for future use, in adjusting the height of the embankment and bridging.

When the high ground is reached on the west side of the river, the line is distant from, and below the mouth of Buck's creek, about three-fourths of a mile, and near the mouth of a small stream, known upon the maps as Buck Head, and by the inhabitants as Mill creek. This stream is crossed by the line a

short distance from its mouth. The route now takes the general direction north eighty-five degrees west, bearing rapidly away from the last mentioned stream to the right, and attains at once the ridge between Buck Head and Buck's creek—the moderate elevation of which, near the river, consisting of a sort of second low lands at first, and thence gradually rising within the reach of the grade, favored our purpose.

The ridge between the two creeks for some four miles from the river, is of considerable width, and so uniform in its cross-sections—while but gradually increasing its elevation, as to admit the line being thrown upon any part of it, which may most favor its direction. About five miles from ihe river, however, the ridge becomes narrower, and more clearly defined, and limits the choice of ground to a narrow strip or belt, having on the right, steep and abrupt hollows making into Buck's creek, and on the left, hollows of Buck Head, though less abrupt in their descent than those on the right. While the former, therefore, will require a strict adherance to the ridge on that side, the latter may occasionally be crossed a short distance from their heads, where the alignment will be improved by such a course.

As the ridge decreases in width, curves will become of more frequent occurrence, and occasionally perhaps, of a minimum radius—though occurring upon easy, and perhaps sometimes level grades. This portion of the line will not be objectionable however, on the score of curvature. In profile, the ridge continues to present the same features alluded to, as characterizing it at first, until a point is reached where the roads from Lanier and Traveller's Rest intersect, near a point marked upon the map, as "Martin's;" where the ridge changes, as I may say, its name, and in some degree its character—that is, it becomes the dividing ground between Buck's creek, and Sweet Water, or what is known here as Camp creek, and presents a more undulating surface or profile.—At this point, the head waters of Buck Head have of course been passed. At the junction of the roads in question, the distance from Traveller's Rest is seven miles, from Lanier twelve miles, from Pondtown, eleven miles. From this point for some miles the line departs but little from the road; but frequently shifting its position from one side to the other.

About seven miles from the Pondtown road, and a short distance below Mott's, a somewhat sudden depression in the ridge is encountered: which is the first point involving much expense this side of the Flint.—The ridge here becomes narrowed down to scarcely a hundred feet in width, (with an abrupt hollow, of Buck's and Camp creeks, on either side) on top of which, for a little distance, a fill of thirty feet will be necessary.

The summit of the ridge having again been reached beyond this depression, the line runs upon the left hand of the road for a mile and a half, to Mott's plantation, where the road is again reached.

From this point, the ridge is so narrow, and the crest of it, which the line would necessarily occupy, being so nearly occupied by the highway, that it was thought sufficient for all the purposes of the survey, to carry the line immediately along the road. This course was therefore adopted, and the line carried along the Pondtown road to Burton's, where the road to Columbus forks.

The Columbus road is then pursued by the line, carrying us about half a mile to the right, or north of Pondtown—still following the same ridge, except that a short distance below Pondtown, the head of Camp Creek (or White Water) is passed, and a short distance above the same place, it becomes the ridge between little Muckalee, (called simply Muckalee, on Bonner's map,) and Buck's creek. I may as well notice the fact, that to pursue a direct course, the line would pass from a mile to a mile and a half, to the right, or north of Pondtown, instead of half a mile. A tributary of Buck's creek, called Deer creek, which heads within half a mile of Pondtown and runs a northeriy course, would have to be crossed, by the more direct line alluded to—to head which, by pursuing the ridge, involves a loss of distance of some amount; whether the saving of distance would more than counter-balance the difficulties, by this route, cannot now determine.—In the location of the road, this matter might deserve attention. The distance to Pondtown, or opposite that place, was found to be by the line, sixty-seven miles, or one mile less than the highway, and a location would somewhat shorten this distance. Pondtown was found to be at an elevation of 300 feet, above the Flint, and 578 above tide-water.

Having reached Pondtown, it became necessary to consider carefully the best direction for the continuation of the line, and the most eligible point for making the deflection southward. As the distance within which it has been thought advisable to approach Columbus (provided the further prosecution of the line in that direction, should be at the expense of the Southwestern line) had been reached, the question appeared to rest principally upon the features of the country; and the route which would afford the most eligible and economical line, was therefore to be prefered.

To arrive at any conclusion on these points, involved the examination of a considerable scope of country. This duty was performed as thoroughly as the time at command would permit. One conclusion arrived at was, that the further prosecution of the survey in a westerly direction, would not be attended with detriment to the South Western line, while it would further lesson the distance to Columbus.

The question soon narrowed itself down to two routes, either of which would preserve a westerly direction, to a point about seven and a half miles beyond Pondtown, and of course so much nearer Columbus—or say thirty-seven and a half miles from that place. This, it will be observed, is but one-half the distance from Columbus to Barnesville. It should be stated in this connection, however, that the distance from Pondtown to Columbus by the highway, from which this distance is deduced, has never been measured, and is therefore only guess-work. But by measuring the distance in a straight line upon the map, from Pondtown to Columbus, it is found to be forty miles; and it is confidently believed, that the excess of five miles (the distance being called forty-five miles) will fully cover the difference. The distance from Macon to Columbus, measured upon the map in a straight line, is eighty-four miles, and the length of the line for the Columbus extension of the Central railroad being ninety, shows an excess of only six miles in eighty-four; and in the same ratio, would make the distance from Pondtown to Columbus, less than forty-three miles, and the nearest point of the line to Columbus, as distant but thirty-five miles; and it is believed, that a branch to Columbus can be had in equally as direct a course, as is pursued by the line from Macon to Columbus. The country, so far as it fell under our observation, is of a highly favorable character.

To this point, or about seven and a half miles west of Pondtown, the two routes alluded to are common, and occupy the same ridge upon the south side of Buck's Creek, successiully pursued, as already described, from the Flint river, a distance of some twenty-five miles.

By this course Little Muckalee is left entirely on our left; and the crossing of that creek, together with some of its tributaries, which would be the result of an earlier departure from a westerly direction, is wholly avoided.

The routes, (if I may so speak of them here) still preserving the same identity as to the ground occupied, for a short distance further, taking a south-west direction, soon reach the head of a small stream, known as Boon's branch, a tributary of Big Muckalee. About half a mile from the south of this branch, the adopted line bears to the right; and crossing the branch, and the spur of land in the fork between it and the Big Muckalee, attains the eastern slope of that stream, and is carried up it, in the general direction, north sixty degrees west. At the same time that the bed of the creek is ascending, the grade descend at the maximum rate, until we are able to cross the creek about three-fourths of a mile above the mouth of Boon's branch, and a short distance below Frasier's Mill, with a fill of twenty five feet. The valley is here quite narrow, and the slopes abrupt, affording, therefore, a favorable crossing. This point is near the intersection of Marion, Sumter, and Stewart counties, and nearly due west from Pondtown.

The other route alluded to, as having held out inducements, would continue down Boon's branch to its mouth, and thence following down the valley of the Big Muckalee for three-fourths of a mile, passing Jenkins' Mill, finally reach the mouth of a small tributary coming into the Muckalee from the south-west, which would conduct the line to the summit, between the Muckalee and Lannahassee. Thence following down the Lannahassee, the line would reach the Kinchafoonee at the mouth of the former stream.

Thus far, this route would be highly favorable, and indeed this route was at first preferred. But before reaching the point on Boon's Branch, where the two routes diverge, a different conclusion was arrived at. This was in consequence of a more extended reconnoisance on this route, bringing to view difficulties that would be encountered on the other side of the Kinchafoonee—by adopting what may be called the Lannahassee route. These difficulties consist principally in crossing Bear Creek; and its tributaries, which it was believed might be entirely avoided by a different route, which was therefore adopted, and to which your attention has already been drawn as far as Frazier's Mill.

It is possible that the Lannahassee route might present some small advantage on the score of distance, provided the Buck's Creek ridge was left at or near Pondtown; but this, as already stated, would involve the crossing of the Little Muckalee, and some of its tributaries, which it is believed would counterbalance any small saving in distance, that might be the consequence—especially if the fact, that the distance to Columbus would be very much increased, should have any weight in the decision. In the final location of the line, it may be best to review these questions, and submit the merits of the different lines that may claim attention, to the test of actual survey. I will now continue the description of the adopted line, from Frazier's Mill.

From this point, the line pursues the valley of a small stream, called Watley's Creek, which empties into the Muckalee, half a mile below the mill. For some distance the line lies from two to three hundred yards from the creek, on its northern slope, which affords a highly favorable route, until at the distance of about a mile and a half from the Muckalee, it becomes necessary to cross the creek, the direction of which is now too much northerly, and to follow up a small branch coming in from the west. In crossing Watley's Creek we are involved in a fill of about forty-five feet for a short distance, when the ground is again favorable, and continues mainly so, to the head of the branch in question, by which we reach the summit between the Muckalee and Kinchafoonee—having the extreme head hollows of the Lannahassee on our left, which stream is consequently avoided by this route.

At this point a south-westerly direction is again resumed; the line now pursuing the ridge between the Lannahassee and Kinchafoonee.

It was ascertained that the direction of this ridge, for the distance of about eight miles, was highly favorable; and in its profile it was hoped that it would be found to have a regular inclination, at least equal to that of the Kinchafoonee; so that the descent to that creek could be undertaken under as favorable circumstances at one part of the ridge as another. A small tributary of the Kinchafoonee, having its head in the western slope of the ridge in question, and running into the Kinchafoonee opposite the mouth of Slaughter Creek, it was hoped would afford the means of effecting this descent. The result disappointed our hopes—at no time, however, very sanguine. After submitting to a cut of forty feet at the head of the tributary or branch in question, and descending to the Kinchafoonee at our maximum rate of grade, it was found that this route involved us in a fill in the Kinchafoonee swamp of eighty feet, and of course rendering it impracticable at a reasonable cost. This disappointment arose principally from the fact, that the ridge, instead of taking the inclination of the creek on either side, preserved its elevation with a singular obstinancy—if I may so express myself—showing in eight miles a fall of but about nine feet. This, taken in connection with the fall of the Kinchafoonee, constantly widened, instead of diminished the difference in elevation between the two.

But a ready expedient was at hand, and which, indeed, came near being adopted at first, by which the descent from the ridge to the creek, might with certainty be effected, at a moderate cost. This consisted in running down another and more lengthy tributary of the Kinchafoonee, known as Fox Creek, heading on the western slope of the same ridge, six miles higher up, and falling into the Kinchafoonee about two miles above the mouth (of course on the opposite side) of Slaughter Creek. This stream affords sufficient distance to make the descent certain, and attended with no unusual expense. As is common in carrying grade lines along the slope of a valley, small branches and heads making into it, require sometimes to be crossed with somewhat elevated, though usually short embankments.

No instrumental survey of the Fox Creek route has been made, farther than to ascertain the fall from its head to its mouth, (which the notes of the line surveyed afford,) together with the distance The time at command was thought insufficient for an actual survey; and, indeed, as the important facts were already in our possession, on which to base the estimates of cost, etc., it was thought entirely unnecessary to the present purpose. About one mile and a half will be the greatest variation from the line as run—which passes near Searsville, and at which point the greatest variation will occur.

The line as projected or located on the map intended to be lodged in the department of state, agreeably to the 16th section of the Act of Incorporation, embraces this improvement, as also all others, where it is thought advisable to depart from the line as surveyed.

This brings the line to the Kinchafoonee, down which the route, as proposed, would run, to opposite the mouth of Slaughter Creek—or say about two miles. The Kinchafoonee swamp was found to be about half a mile wide, but presenting no considerable difficulties, either as to the depth of the overflow, or in any other particular.

The line then follows up the southern side of Slaughter Creek, between the base of the hill, and the swamp, affording, upon the whole, an eligible route. About two miles from the mouth of Slaughter Creek, the line reaches the mouth of Jossey's Mill Creek, a tributary of Slaughter creek, coming in from the south-west, and having its head within a little over a mile of Richland, better known as Box-Ankle. Up this latter creek, the line is now carried, and for a considerable portion of the distance, at our maximum grade, which finally brings the line to its head with a cut of twenty-five feet.

At Richland, which place the line passes immediately through, the ridge dividing the waters of the Flint and the Chattahoochee, is fully attained; the heads of Bear creek, falling into the Kinchafoonee, being on the left, and those of the Hannahachee, falling into the Chattahoochee, on the right. The elevation at this point is found to be 598 feet above tide, and the distance from Macon 97 miles, which of course a location of the line would somewhat reduce. The distance is posted by the highway 100 miles. The distance to Columbus is called 37½ miles, to Cuthbert 25, to Fort Gaines 45, and to Lumpkin 8¾ miles.

From Richland, the line takes a southerly direction, along the ridge above alluded to, which was so favorable as to invite the continuance of the line upon it until the close of the survey; and will continue to offer inducements in its further prosecution.

Having reached a point where the ridge between Bear creek and the Ichawaynochaway branches off, about seven miles south of Richland, the question of the best point of divergence for the branch to Albany, began to present itself; at which point, when ascertained, the survey, according to instructions, was to terminate. This matter has been investigated as fully as the time at command would permit; and a reconnoisance, having this matter in view, has been extended over a considerable section of country, embracing portions of Stewart, Randolph and Lee counties. The country appears to present two different routes.

The first would leave the main line from six to eight miles south of Richland, and following the ridge between the Kinchafoonee and the Ichawaynochaway, would not necessarily cross a single water course in the whole distance to Albany—which, in a straight line, is 42 miles; and it is doubtful if a located line would reach 45. So far as this route has been examined, which is about 20 miles, it is unsurpassed in the facilities it affords for a cheap line. I think I risk little, in the expression of opinion, that the grading could be done for an average of $2,000 per mile—if not for a less sum.

Another route, would diverge near the upper line of Randolph, pass near Brooksville, and running down the ridge between the Little and Big Ichawaynachaway, finally cross the latter stream, and the Chickasawhachee, and pursue a direct route to Albany. The distance would be somewhat in favor of this route, say by two or three miles, and the country would, upon the whole, be favorable—as after passing south of Stewart county, a change takes place in the features of the country,—which becomes more flat, and the streams less depressed beneath the adjacent table-lands, rendering their passage of more easy accomplishment.

MAP

of the Route Surveyed

For the

SOUTH-WESTERN R

From

MACON TO THE CHATTAHOO

Exhibiting it in connection with the Cen
the proposed extension to the Gulf of
its relation to most of the Southern imp

Surveyed by

F.P.HOLCOMB

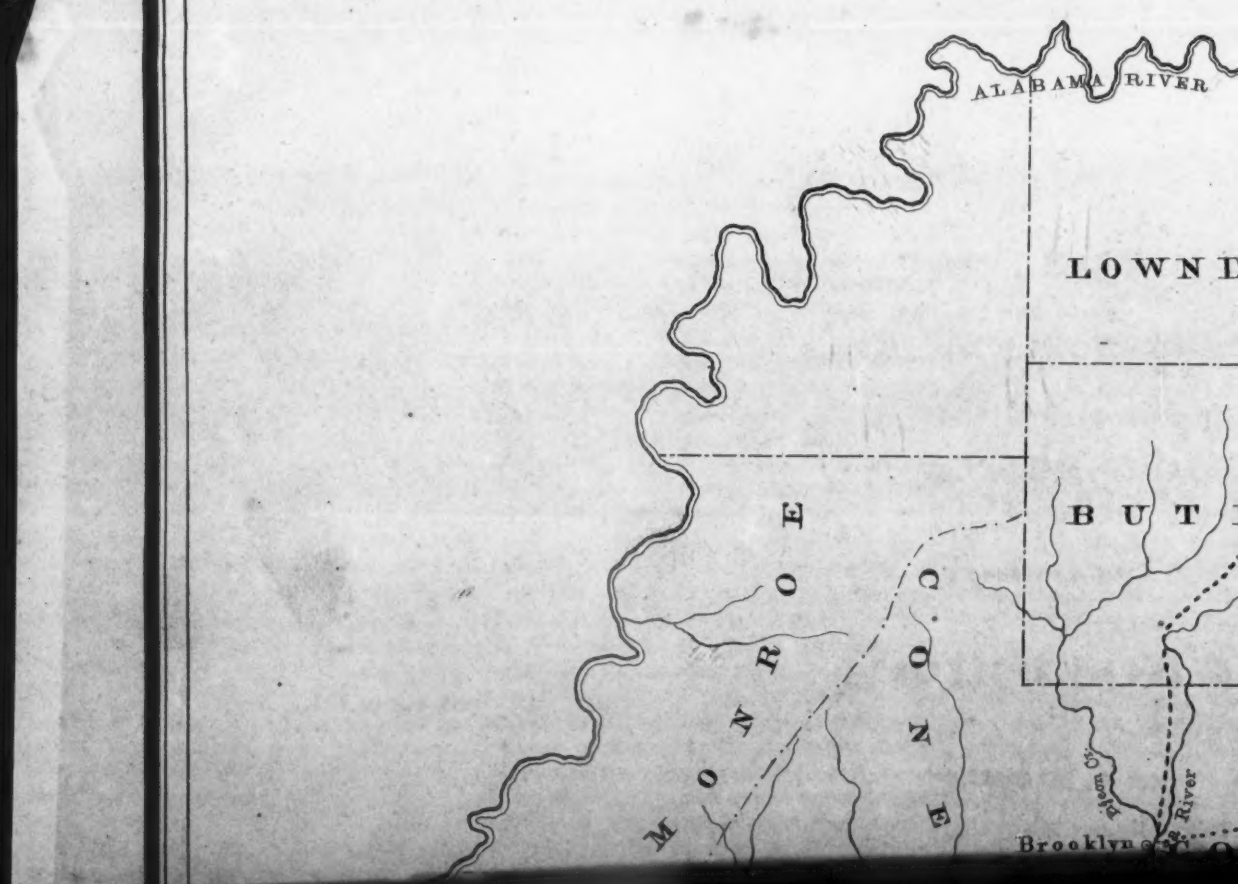
ASSISTED BY

J.W.HOUSTOUN

DRAWN BY VIRGIL POW

Nov.r 1847.

Lith. of Wagner & M.c Guigan, 116 Chesnut



rveyed

N RAIL ROAD

HOOCHEE RIVER:

the Central Rail Road,
ulf of Mexico, and
hern improvements.

ry

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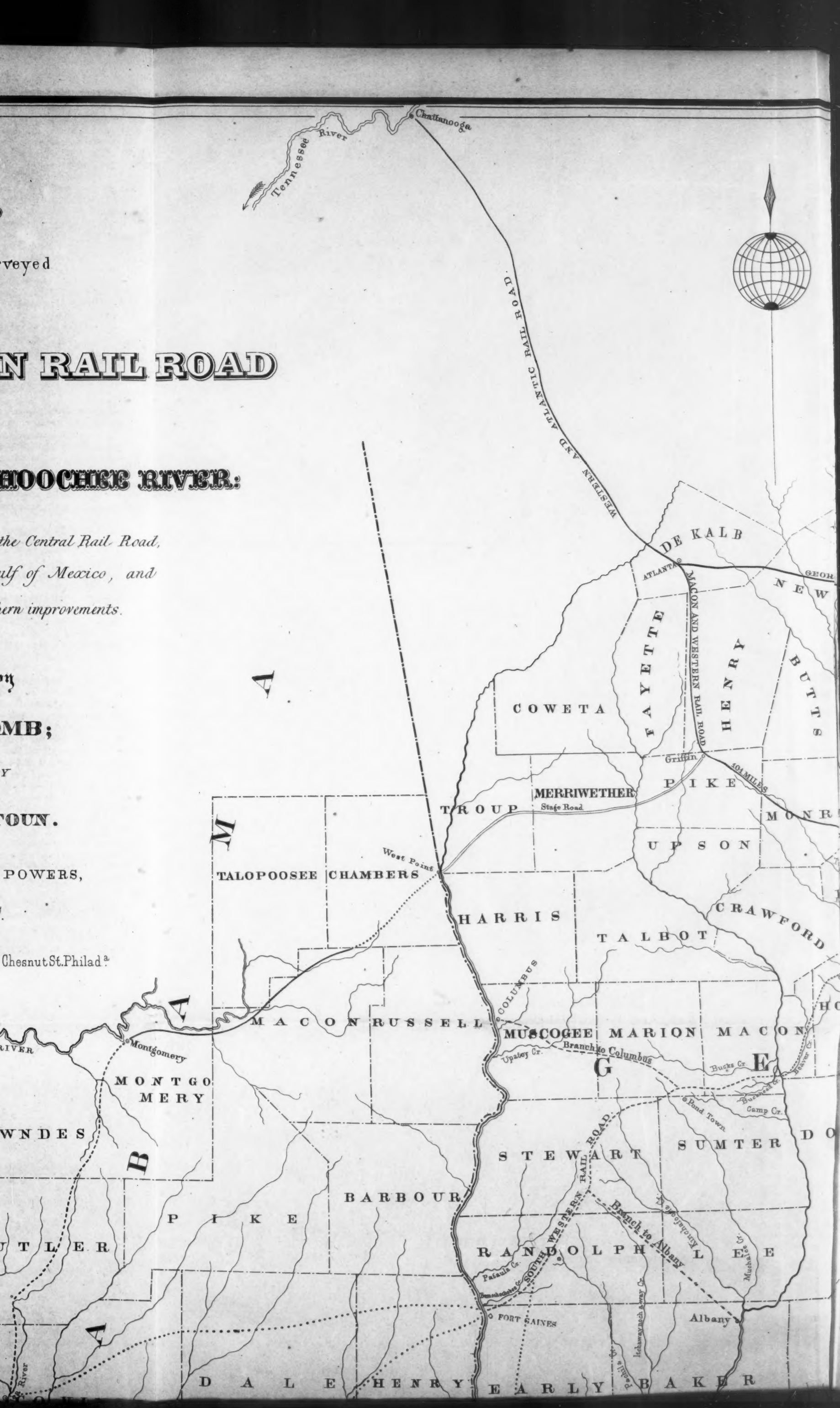
POWERS,

Chesnut St. Philad.ª



S O U

WESTERN RAIL ROAD

Athens

DE KALB

ATLANTA

MACON AND WESTERN RAIL ROAD

GEORGIA RAIL ROAD

171 MILES

NEWTON

MORGAN

CLARKE

OGLETHORPE

WILKES

LINCOLN

EDGEF

TALIAFERRO

COLUMBIA

AUGUSTA

WARREN

RICHMOND

ETA

FAYETTE

HENRY

BUTTS

PUTNAM

GREENE

HANCOCK

JASPER

JONES

BALDWIN

WASHINGTON

JEFFERSON

BURK

Griffin

40½ MILES

RRIWETHER

e Road

PIKE

MONROE

UPSON

MACON

WILKINSON

CENTRAL RAIL

OGEECHE

TWIGGS

EMANUEL

Tobesofkee Cr.

Ocmulgee Cr.

TIBB

CRAWFORD

TALBOT

Mule Messey Cr.

Fort Valley

HOUSTON

Big Indian Cr.

Perry

OGEE MARION MACON

Branch to Columbus

Bucks Cr.

Beaver Cr.

Buckhead Cr.

Camp Cr.

Pond Town

G E

OPULASKI

LAURENS

Oconee River

MONTGOMERY

G I

T A T N A L

SUMTER

DOOLY

W A R T

WESTERN RAIL ROAD

Branch to Albany

Kinchafoonee Cr.

Muchalee Cr.

OLPH L E E

Ocmulgee River

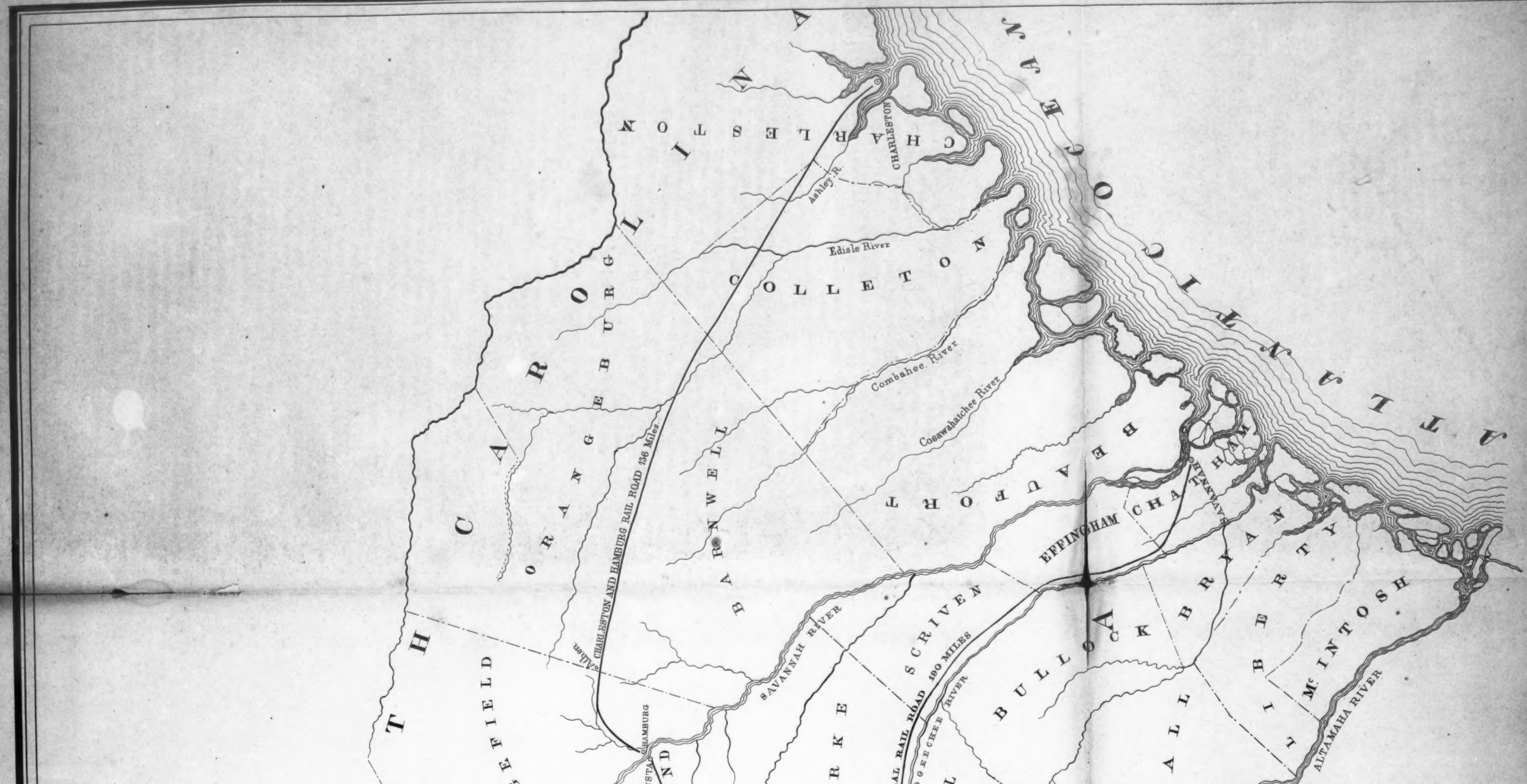
ALTAMAH

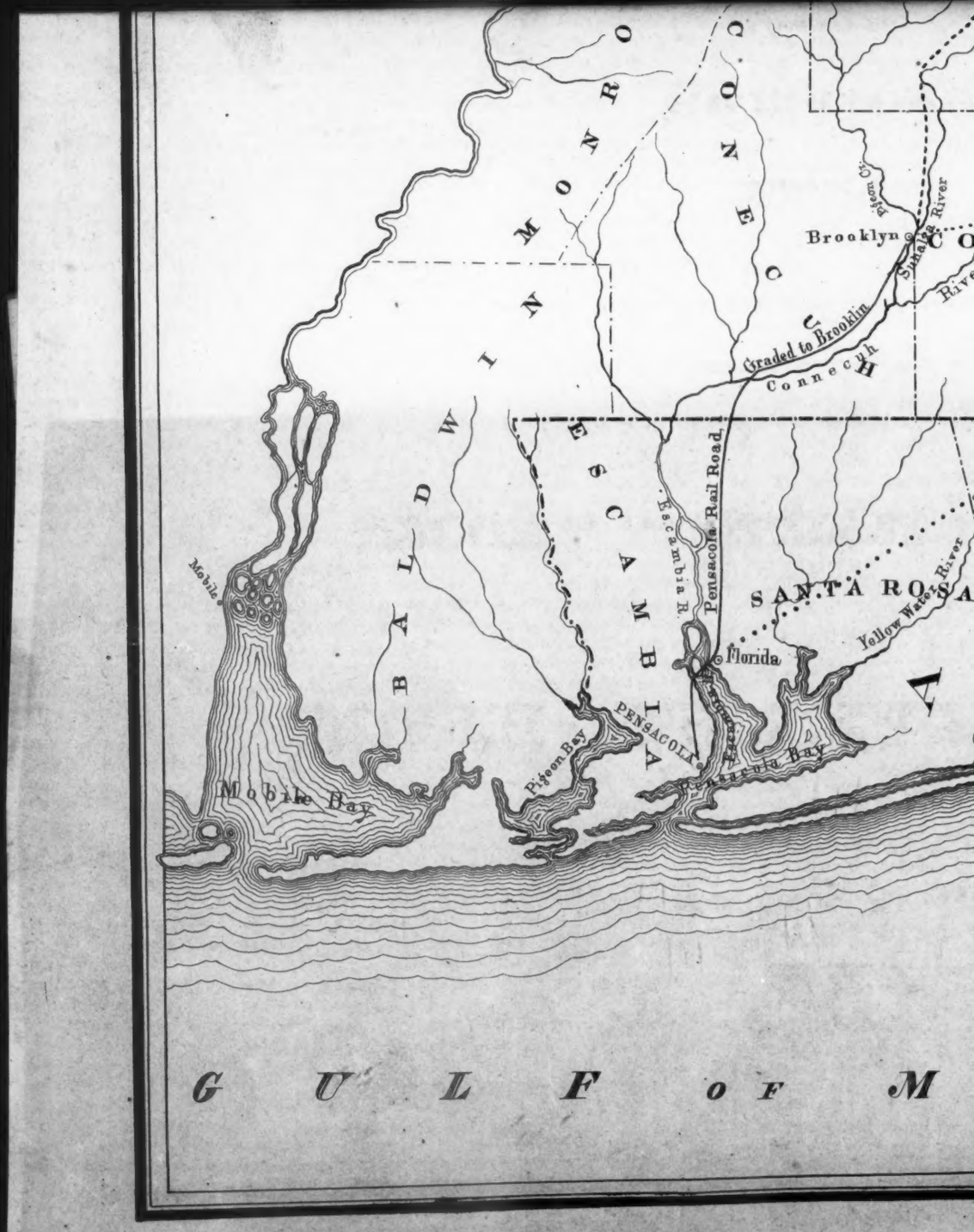
Albany

Ichawaynochaway Cr.

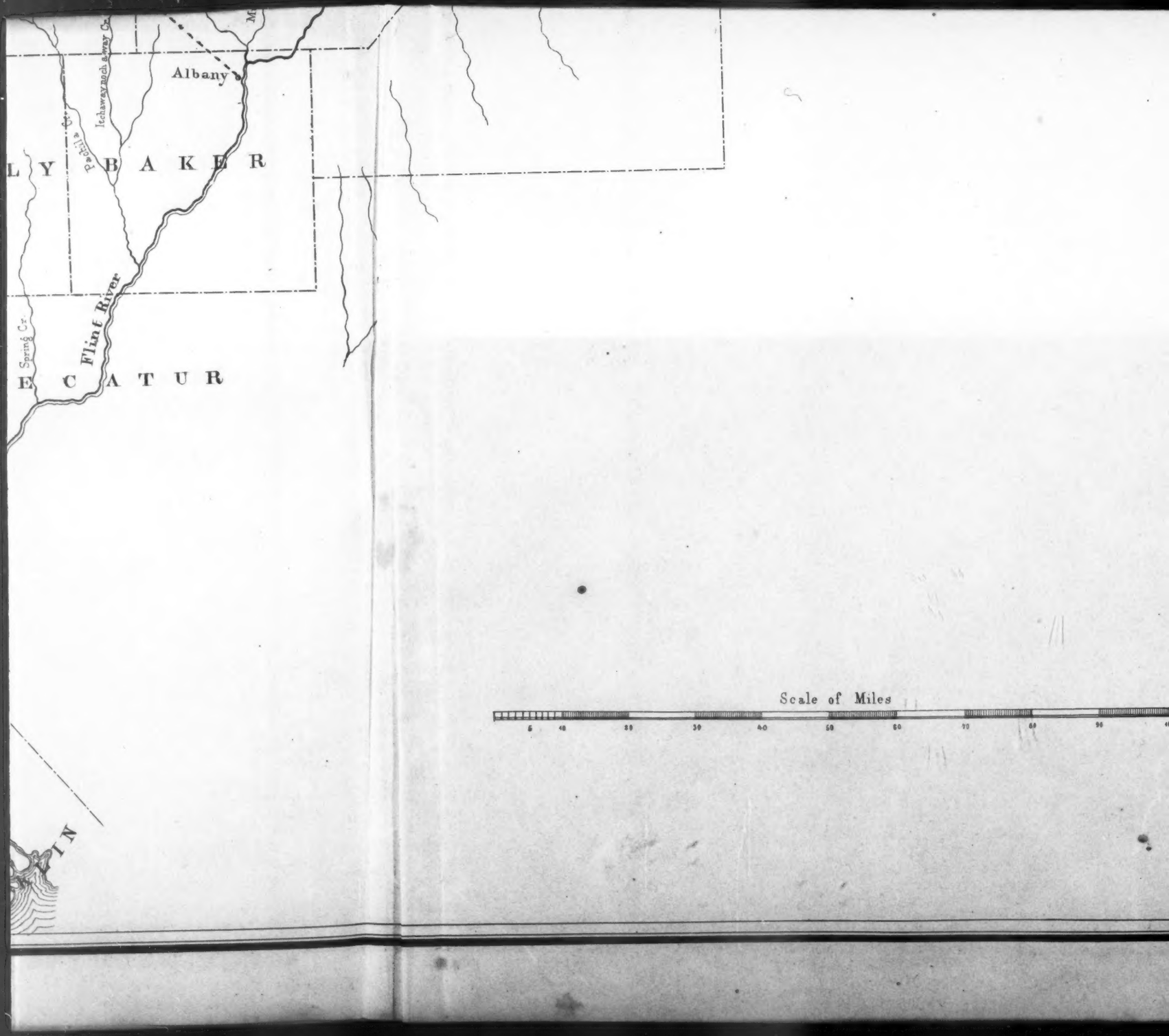
Pachitla Cr.

L Y B A K E R


ATLANTIC OCEAN
CHARLESTON
CHARLESTON
Ashley R.
Edisle River
COLLETON
ORANGEBURG
Combahee River
Cosawhatchee River
BEAUFORT
BARNWELL
THE CAMDEN
EFFINGHAM
CHATHAM
SAVANNAH
SCRIVEN
BULLOCH
BRYAN
LIBERTY
Mc INTOSH
ALTAMAHA RIVER
SAVANNAH RIVER
CHARLESTON AND HAMBURG RAIL ROAD 136 Miles
SAVANNAH RAIL ROAD 190 MILES


MONROE
CONECUH
BALDWIN
ESCAMBIA
Brooklyne
Pigeon Cr.
Simmons River
Graded to Brooklin
Conecuh
Escambia R.
Pensacola Rail Road
Mobile
Florida
SANTA ROSA
Yellow Water River
Pigeon Bay
PENSACOLA
Pensacola Bay
Mobile Bay
GULF OF M


Pafaula Cr.
Benschickee Cr.
SOUTH
PORT GAINES
Albany
Muscogee
Ichawaynochaway Cr.
Pataula Cr.
Flint River
Spring Cr.
Chatahoochee R.
Choctawhatchee River
Pea River
Small River
River
COVINGTON
DALE
HENRY
EARLY
BAKER
DECATUR
JACKSON
WALTON
WASHINGTON
CALHOUN
FRANKLIN
Choctawhatchee Bay
St Andrews Bay
ST ANDREWS
Chipola River
Apalachicola River
St Josephs Bay
MEXICO


Albany
L Y B A K E R
E C A T U R
Flint River
Scale of Miles


A T
H S
400
ON STONE BY JACOB AUB

In view of this state of facts, it was decided to continue the main line to the upper line of Randolph county, and there to close the survey,—which is as nearly in compliance with the instructions to "terminate at the most eligable point for a branch to Albany," as circumstances would admit. Both, of what are believed to be the most eligable points, are thus shown in connection with the route surveyed.

The most eligable ground for the continuance of the main line will, as before intimated, probably be found along the dividing ridge between the Flint and Chattahoochee, for some distance farther—by pursuing which, Cuthbert will be left from one to two miles to the left. I have already taken occasion to examine the country along this ridge as far as Cuthbert, which may be pronounced favorable,—and have also made a reconnoisance as far as the Chattahoochee at Fort Gaines—which place, or "below," the charter designates as the terminus of the road. The result of the reconnoisance was favorable. The most eligible route, it is believed, would continue upon the dividing ridge between the Chattahoochee and Flint, or their tributaries—which are here, Pumpkin creek and the Socohachee, tributaries of the former, and the Pachitla, a tributary of the latter—passing from one to two miles to the right, or west, of Cuthbert, as already alluded to; until having passed the head of the Soco hachee, the line would take a westerly direction to the head of Hog creek.

Falling into the valley of this creek, it would, after overtaking the descent of the stream, by a resort to the maximum grade for about two miles, descend along the second low grounds, or interval between the swamp and hill side, which is of considerable width, and in all respects of the most inviting character, to the junction of Hog creek with the Somochechobee—the valley of which, appears to offer the same, if not greater inducements that that of the former stream, if possible. The line would continue down the north bank of the Somochechobee, to the point where the creek is crossed by the road leading from Cuthbert to Fort Gaines, where a crossing could be effected at, comparatively, a very small expense. The swamp here disappears entirely, and the creek is discharged through a gorge fifty feet in depth, and scarcely an hundred feet in width.

Having reached the southern bank of the Somochechobee, the line might either skirt along it to the valley of the Chattahoochee, or taking, for a short distance, nearly the direction of the highway and leading to Fort Gaines, reach the Chattahoochee valley near where the road from Fort Gaines to the Ferry, descends into it—a short distance above the bluff.

After reaching the valley of the Chattahoochee by either of these routes, the line would then, probably, skirt along the slope of the high land bordering it to the upper edge of the bluff, just alluded to, and on which Fort Gaines is situated, where the Chattahoochee might be crossed, apparently under highly favorable circumstances. The bluff, which is said to be one hundred and sixty feet high, is washed by the run of the river; so that no embankment would be required on the Georgia side, in the approach—neither would the bluff require to be cut down, as the line might approach upon the slope before alluded to, at any convenient elevation.

On the other, or Alabama side, the features of the ground with reference to crossing the river, are less favorable, but not so much so, as to partake of an opposite character. The river flats, which are about a mile in width, and under cultivation to the very bank of the Chattahoochee, are so high as but seldom to come within the range of freshets—and then to but a small extent. The March freshet of 1841, overflowed those flats but from two to three feet. A moderate embankment, therefore, would not only place the road above the range of high water, but also elevate the bridge so much, as to render it practicable to dispense with a draw; which would be regarded by some as an obstacle to the free navigation of the river—already beset with sufficient difficulties, but still likely for a considerable time, to preserve its character of a navigable stream, and to be resorted to for that purpose. It is, however, like most other of the rivers of the country, ultimately destined to yield the palm to the superior speed, certainty and safety of that great revolutionist, the Railroad. If I might be permitted for a moment to wander so far from the subject, I should run but little risk of not being borne out by the fact, were I to predict, (and the prediction is therefore hazarded) that the mighty Mississippi itself, at least for all purposes of travel, will be deserted. We have but to compare the distance by land and water, from New Orleans to Louisville, for instance, to show the probability of this event.

From New Orleans to Louisville by water, is fourteen hundred miles, and by land, six hundred! I hope I shall be pardoned this digression, and allude to the subject more to place the prediction on record, than for any other reason. But of course it will be necessary notwithstanding, to provide for the uninterrupted navigation of the Chattahoochee; and this, it is believed, cannot be done so completely, or perhaps so economically, as by elevating the bridge sufficiently for boats to pass without a draw.

In speaking of the subject of crossing the Chattahoochee, I am of course stepping beyond the present charter, and looking to the extension of the road to Penracola—or some point on the Gulf of Mexico, its ultimate destination. And with reference to its extension, it may be well to notice the fact—that it is not unlikely, but a different and quite favorable line, might be had from Richland to the Chattahoochee, reaching that river at a point more eligible for the continuation of the line through Alabama. This, however, would require a slight modification of the charter, which requires the termination upon the Chattahoochee, as before alluded to, to be "at or below Fort Gaines."

The route in question, would, after passing Richland, in Stewart county, instead of pursuing for some distance the dividing ridge between the Flint and Chattahoochee, as is the case with the line surveyed, fall to the right, or west of that ridge, into the valley of the Pataula creek; and be conducted by that to the Chattahoochee. Whether, however, the same favorable crossing could be had at this point, as has been described as offering at Fort Gaines, is a matter not perfectly clear. But, after attaining the Alabama side, it is believed this route would possess superior advantages. The Fort Gaines crossing would involve a deflection to the right, after crossing was effected, which would place the line, ultimately, upon the same ground which would be occupied by the other route through Alabama—or render it necessary to cross, with considerable difficulty and expense, the Yattayabba creek, which has its head considerably above Fort Gaines, (on the opposite side,) and runs for some distance a nearly parallel course with the Chattahoochee, falling into that river considerably below Fort Gaines.

The route by the Pataula, would pass within ten miles of Eufaula, Alabama—where it is understood thirty thousand bales of cotton, per annum, are received—which would be in itself a decided advantage. The nearest point to Eufaula, on the Fort Gaines route, is twenty five miles.

By crossing the Chattahoochee near the mouth of the Putaula, and thence running, up Hardridge creek, coming into the Chattahoochee from the west, or perhaps a small stream still higher up, which falls into the Chattahoochee, near the line between Barbour and Henry counties, Alabama, the line would leave the Yattayabba on the left, and reach the valley of the Choctawhatchee, and Pea rivers, near the Florida line. Thence, taking a westerly course up Pea river, finally pass into the state of Florida; and either continue a westerly course, not very remote from the boundary line between Florida and Alabama, till it intersected with the Pensacola and Montgomery railroad, already graded beyond this point, about forty miles from Pensacola; or taking the direction of Yellow-water river for some distance, finally cross Middle river, and intersect the Pensacola and Montgomery railroad at the town of Florida, about twelve miles from Pensacola.

It is understood that the Pensacola company is ready to form a junction with the Southwestern railroad, at any point; and not unlikely to meet the Southwestern company on the banks of the Chattahoochee. The Pensacola and Montgomery railroad is graded to the town of Brooklyn, on the Suplaga river, a distance of about seventy miles.—The distance from this point to Fort Gaines, does not vary much from one hundred miles. From Fort Gaines to Pensacola, by the more direct routes, just alluded to, is one hundred and sixty miles.

It may be well to allude to the fact, that the Bay of St. Andrews, affording an equally fine harbor with that of Pensacola, could be reached in the distance of one hundred and ten miles from Fort Gaines, two hundred and

fifty from Macon, and four hundred and forty from Savannah. But the facts of Pensacola being an important naval station, and that the distance from St. Andrews to New Orleans by water, would be one hundred miles further, may award to Pensacola the preference—especially if the Pensacola company should co operate to the extent of the pledges that are understood to have been made by its officers; otherwise the Southwestern company might find it to its interest, to reach the Gulf of St. Andrew's, or possibly St. Joseph's Bay.

These remarks with reference to the route through Alabama and Florida, are made without, by any means, a perfect knowledge of the country spoken of; and are thrown out merely as hints, based upon the best knowledge in my possession. It is however important that the line under the present charter, should terminate at a point on the Chattahoochee, that will admit of its extension, or the junction of some other line with it at this point, under favorable circumstances, which will put the Southwestern railroad in connection with the Gulf of Mexico on the west, as it will be with the Atlantic on the east, in fulfilment of the high destiny which seems to belong to it, and of the grand object of its early projectors and present friends.

It is believed, however, that either crossing of the Chattahoochee which has been alluded to, would present no considerable obstacle in the accomplishment of this object.

BRANCH RAILROAD TO COLUMBUS, OR SOUTHEASTERN RAILROAD.

I will here take occasion to refer to the disappointment and regret of some, probably many persons, residing in the lower counties of southwestern Georgia, below the route traversed by the proposed line of road, that the route passes so much to the right, or above them. This disappointment arises, perhaps from the fact, that the early meetings which were held in southwestern Georgia on this subject, were all to the southward or eastward of this line—principally in Sumter county; and as an air line would fall somewhat more in that direction, the inference was perhaps natural, that the route would probably traverse this region.

I would by no means, however, convey the impression to that part of the public interested in the enterprise, that the present survey settles the question of route—such is, I think I may say, by no means the case. For the citizens along the line surveyed, to flatter themselves that such is the fact, would be to lull themselves into a fatal inactivity and security. The question, I feel authorized to say, is wholly at large. I shall allude to some of the circumstances which influence the commissioners in giving to the route pursued by the present survey, the preference, other things being equal; but if other portions of southwestern Georgia should offer greater pecuniary inducements than that portion traversed by the line, the effect may be anticipated.

It is only necessary to allude to one or two causes which influence the commissioners in their preference, for what may be called the upper route. The principal one is, to facilitate the construction of a branch railroad to Columbus—a railroad connection with which place, is justly regarded as an important feature in this enterprise. It is found that this can be effected in a distance of 37½ miles, as before stated, and over favorable ground.—This object is so important, as to be a sufficient reason in itself—though the face, or topography of the country, has had its influence in determining the question of route.

The distance from Columbus to the junction with the main line, and from thence to Macon, will be 112 miles. A charter has already been obtained for this branch road—stiled the Southeastern railroad.

When it is borne in mind, that this route will possess all the advantages claimed for the route by the way of Barnesville to Macon, that the total distance will be less by about five miles, and that it will require the construction of but 37½ miles of road, against 75 by the other, the Muscogee company's route, and the country affording at the same time a cheaper line—the conclusion is not unreasonable, that the day is not distant, when the Southeastern railroad company will avail themselves of the advantages which their charter affords—whether (which appears to be a matter involving, at this moment, no little doubt, notwithstanding the preliminary steps that have been taken, as I learn from its friends,) the Muscogee company build their road, or otherwise.

Should not the Southeastern company avail themselves of the privileges of their charter, it will, in all probability, be the interest of the Southwestern company to take steps ultimately, towards its construction. Eighty thousand bales of cotton, which are now annually received at Columbus, would be the rich harvest they would reap. There can be no doubt, however, that a large amount of cotton would be wagoned, in the absence of a branch road, from Columbus to the Southwestern railroad—but 37½ miles.

Until the completion of the Muscogee road—should that ever be effected—the whole travel and light goods now hauled in wagons from Barnesville to Columbus, would of course take that route—even in the absence of the branch road in question, or the Southeastern railroad; and it will be seen, this route would become a powerful, if not triumphant competitor for the through travel between the north and south—as it would reduce considerably, the amount of staging to which the traveller is subjected on the present routes. Should the Muscogee railroad ultimately take the field for this travel, the extension of the Southwestern railroad to the gulf—which could not but soon follow—would place that work upon a triumphant footing, which no other object could destroy, or even shake.

This I propose to show in another part of this report, by a comparison of distance, time and expense, between this and the route via Mobile, Montgomery, etc. An approximate estimate of the Columbus branch, based upon a comparison with the ground traversed by the main line, will be submitted.

To be Continued.

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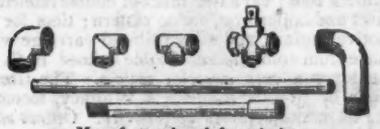

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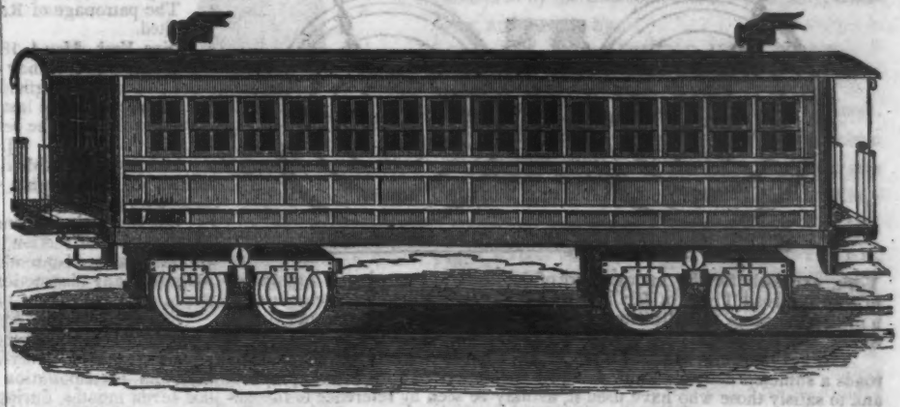

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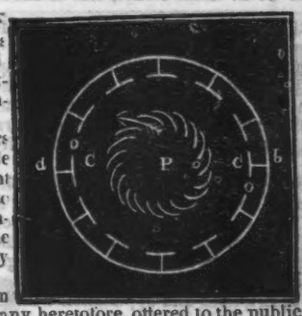

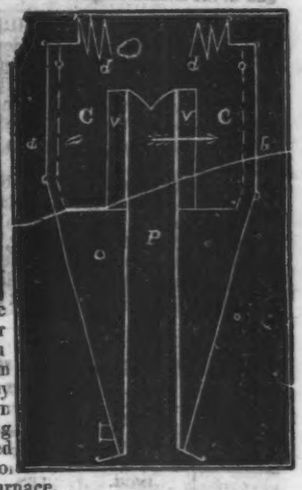

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Philadelphia, Pa., April 6, 1844.

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

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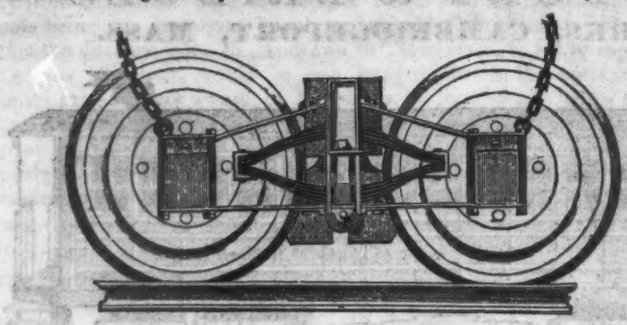
1y48 77 Pine St., New York.

RAY'S EQUALIZING RAILWAY TRUCK.—THE SUBSCRIber having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East river, (of which firm the subscriber was late a partner) under the immediat supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846. W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the bes and most economical truck now in use.

[Signed,] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845. [Signed,] G. A. NICOLL, Sup,t Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use. [Signed,] T. L. SMITH,

Jersey City, November 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, Jamaica November 12, 1845. } [Signed,] JOHN LEACH, Sup't Motive Power. 1y19

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.— for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.				HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.		Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	Tons.
	INCH.	LBS.	OZ.	INCH.	LBS.	OZ.	LBS.	INCH.	
11	4¼	13	5	10	24	–	50	15-16	20
13	3½	8	3	8½	16	–	27	11-16	13½
14	3¼	6	11	7½	12	8	17	9-16	10½
15	2¾	5	2	6½	9	4	13¼	1-2	7½
16	2¾	4	3	6	8	8	10¼	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 *cwt. for every lb. weight per fathom, so that a rope weighing* 5 *lbs. per fathom would safely lift* 3360 *lbs., and so on in proportion.* 1y24

RAILROAD SCALES.—THE ATTEN- tion of Railroad Companies is particularly requested to Ellicotts' Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of **20** years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.
Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
1y25 Philadelphia, Pa.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee G. A. NICOLLS,
ja45 *Reading, Pa.*

TO RAILROAD COMPANIES AND MAN ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,
a45 N. E. cor. 12th and Market sts., Philad., Pa.

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM 1 1-4 TO 6 INCHES DIAMETER,
and
ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
28 Platt street, New York.

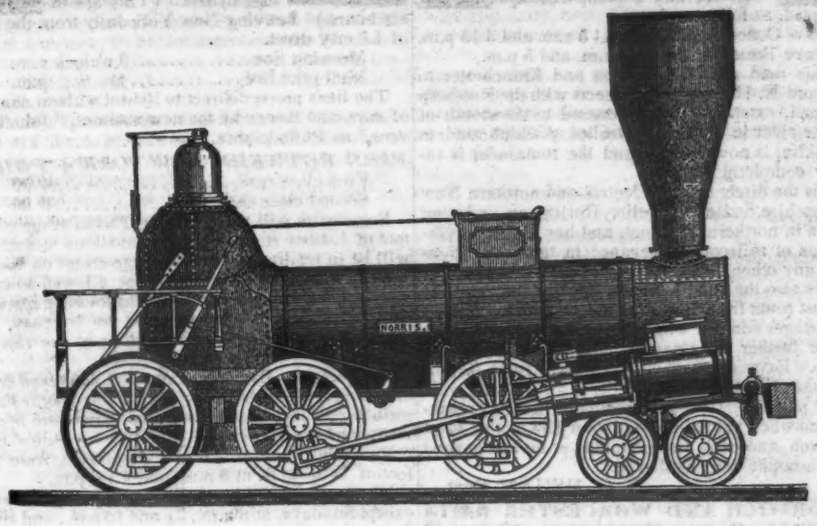
PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

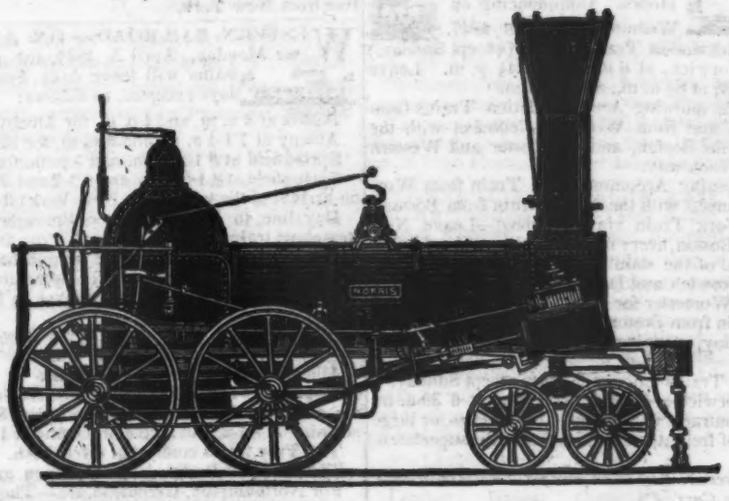
Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





MANUFACTURE to order Locomotive Steam Engines of every plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusunl advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS & BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,

a45 Paterson, N. J., or 60 Wall street, N. York.

THE SUBSCRIBER has on hand a good assortment of his best Leveling and Surveying Instruments, among them his improved Compass for taking angles without the needle—also Bells, suitable for Churches, Railroad Depots, etc.

ANDREW MENEELY.

West Troy, May 12, 1847. 1y*21

PIG AND BLOOM IRON.—THE SUBSCRIBERS are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,

12tf Vine St. Wharf, Philadelphia.

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 1¼ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,

12 Platt street, New York.

JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom. 28tf

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SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent*,

1y Albany Iron and Nail Works,

THE SUBSCRIBERS ARE PREPARED TO exrcute orders at their Phœnix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,

Philadelphia.

ROBERT NICHOLS, Agent,

26tf No. 79 Water St., New York.

CHILLED RAILROAD WHEELS.—THE undersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of Spokes or Disks, by a new process which prevents all strain on the metal, such as is is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,

Willow St. below 13th,

Nov. 10, 1847. [tf.] Philadelphia, Penna.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,

a45 President of the Newcastle Manuf. Co.

CONNECTION BETWEEN THE BOSTON and Lowell and the Boston and Maine Railroads. On and after April 1st, 1847, passenger trains between these two roads, will run as follows, viz:

Leaving Lowell at 7, 11 1-4 a.m., and 2 1-2, 4 1-2, and 6 1-2 p.m., to connect at the junction in Wilmington with the eastward trains—at 7 a.m. and 2 1-2 p.m. with those to Portland; at 4 1-2 p.m. to Great Falls only, with a detention of 45 minutes at the junction, and at 11 1-4 a.m. and 6 1-2 p.m. to Haverhill only. Leaving the junction in Wilmington, for Lowell, at about 7 1-4 a.m. on arrival of the morning train from Haverhill; at about 9 a.m., on arrival of the morning trains from Great Falls. At about 11 3-4 a.m., on arrival of the morning train from Portland. At about 5 p.m. on arrival of the afternoon trains from Haverhill. At about 7 1-4 p. m, on arrival of the afternoon train from Portland.

WALDO HIGGINSON, Agent

BOSTON AND MAINE RAILROAD. Upper Route, to Portland and the East.


WINTER ARRANGEMENT,

Commencing October 4, 1847.

PORTLAND TRAINS.

Leave Boston at 7 A.M. and 2½ P.M.
Leave Portland at 7½ A.M. and 3 P.M.

GREAT FALLS TRAIN.

Leave Boston at 3½ P.M.
Leave Great Falls at 6½ A.M.

LAWRENCE TRAINS.

Leave Boston at 7, 11½ a.m., 2½, 3½, 5½ p.m.
Leave Lawrence at 7, 8½, 11 a.m., 3½, 6½ p.m.

HAVERHILL TRAINS.

Leave Boston at 11½ A.M. and 5½ P.M.
Leave Haverhill at 7 A.M. and 3½ P.M.

READING TRAINS.

Leave Boston at 8½ A.M. and 6½ P.M.
Leave Reading at 6·50 A.M. and 1½ P.M.

MEDFORD BRANCH TRAINS.

Leave Boston at 7½, a.m., 12 m., 2½, 4½, 6 p.m.
Leave Medford at 7, 8½, a.m., 1½, 3½, 5 p.m.

The Depot in Boston is on Haymarket Square.
1y31 CHAS. MINOT, *Sup't.*

BOSTON AND PROVIDENCE RAILroad. Passenger Notice. Summer Arrangement. On and after Mon-



day, April 5, 1847, the Passenger Trains will run as follows:

Steamboat train via Stonington—Leaves Boston every day, except Sunday, at 5 o'clock p.m.

Accommodation Trains—leave Boston at 7 and 10½ a.m. and 4 p.m., and Providence at 7½ and 10½ a.m. and 4½ p.m.

Dedham trains, leave Boston at 8 a.m., 12½, 3½, 6½ and 9 p.m., Leave Dedham at 7 and 9½ a.m. and 2½, 5½ and 8 p.m.

Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7 10 a.m. and 3½ p.m.

All baggage at the risk of the owners thereof.
25tf W. RAYMOND LEE, *Sup't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after Tuesday, June 1st, 1847, the cars



will run as follows, until further notice. Up trains will leave the City Hall for—

Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—

Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4. 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9½ p.m.

ON SUNDAYS, the trains will run as follows:

Leave City Hall for Croton Falls, 7 a.m, 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will preceed each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers $1, to Mechanicsville 87½c., to Newcastle 75c., to Pleasantville 62½c. to White Plains 50c. 25tf

CONCORD RAILROAD.—PASSENGER Trains in connection with the Lowell & Nashua Railroads, run daily between



Concord and Boston, Sundays excepted, as follows. viz:

Leave Concord at 5 40 and 11 5 a.m. and 3 15 p.m.
Leave Boston at 7 and 11 a.m. and 5 p.m.

This road runs by Nashua and Manchester to Concord N. H., where it connects with the Northern railroad, extending from Concord to the mouth of White river in Vermont, 18 miles of which road, to Franklin, is now opened, and the remainder is rapidly completing.

It is the direct route to Central and northern New Hampshire, and to Montpelier, Burlington, and other towns in northern Vermont, and has a greater proportion of railroad conveyance in those directions than any other line.

It is also the British Steam Mail Line, and the nearest route from Boston to the Canadas. Numerous stages connect with all parts of the road.

For further information, apply at B. P. Cheney & Co.'s Express office, No. 8 Court St., and Averill & Dean, No. 15 Elm St.

All passengers' baggage should be properly marked, and when valued at more than $50, notice must be given, and extra charges paid, or no loss beyond such amount will be allowed.
26tf N. G. UPHAM, Supt.

NORWICH AND WORCESTER RAILRoad. Summer Arrangement. Change of



Hours. Commencing on Wednesday, April 21, 1847.

Accommodation Trains, daily, (except Sunday.) Leave Norwich, at 6 a. m., and 4½ p. m. Leave Worcester, at 8½ a. m., and 4½ p. m.

☞ The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 2½ p.m. train from Boston.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the stamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 6½ p.m., daily, except Sunday, stopping at Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Leave Norwich at 7, and Worcester at 6 30 a. m. Special contracts will be made for cargoes, or large quanties of freight, on application to the superintendent.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜
32 1y J W. STOWELL, Sup't

LONG ISLAND RAILROAD COMPANY. Summer Arrangement. On and after Monday



May 1st, trains will run as follows, except Sundays:

Leave—Brooklyn at 9 1-2 a.m. for Farmingdale, 1 1-2 p.m. for Greenport, at 4 p.m. for Farmingdale.

Leave Farmingdale at 7 a.m for Brooklyn, 12 m. do., at 3 1-4 do. do.

Leave Greenport at 8 1-2 a.m. for Brooklyn.

Leave Jamaica at 8 a.m. for Brooklyn, at 1 p.m. do., at 4½ p.m do.

On Saturdays, a train will leave Brooklyn for Yaphank, at 4 p.m. Leave Yaphank, on Mondays for Brooklyn at 5 1-2 a.m.

On and after May 15th, and until September 1st, 1847, a train will leave Jamaica at 7 a.m. for Brooklyn—leave Brooklyn at 6 p.m. for Jamaica, and will land and receive passengers at any place between Brooklyn and Jamaica.

On Sundays—leave Brooklyn at 8 1-2 a.m. for Farmingdale; leave Farmingdale at 4 p. m. for Brooklyn.

Freight Trains—leave Brooklyn at 10 a.m. for Greenport; leave Greenport at 12 m. for Brooklyn.

Baggage crates will be in readiness at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side.

The steamer "Statesman," Captain Nash, leaves Greenport for Sag Harbor on the arrival of the Accommodation train from Brooklyn.
25tf DAVID S. IVES, Sup't.

NEW YORK AND PHILADELPHIA RAILroad line—direct. Via Newark, New Brunswick, Princeton, Trenton,



and Bristol. (Through in six hours.) Leaving New York daily from the foot of Liberty street.

Morning line.....9 o'clock a.m.
Mail pilot line.....4½ " p.m.

The lines proceed direct to Bristol without change of cars, and thence by the new steamer, "John Stevens," to Philadelphia.

FARE BETWEEN NEW YORK & PHILA.

First class cars.....$4 00
Second class cars..... 3 00

Passengers will procure their *Tickets* at the office foot of Liberty st., where a commodious steamboat will be in readiness with Baggage-crates on board.

Fifty pounds of baggage will be allowed to each passenger in this line, and passengers are expressly prohibited from taking anything as baggage but their wearing apparel, which will be at the risk of the owner.

Philadelphia Baggage-crates are conveyed from city to city, without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for ladies' use

Returning, the lines leave Philadelphia from the foot of Walnut st. at 9 a.m, and 4 1-2 p.m.

The lines for Baltimore leave Philadelphia daily except Sundays, at 8 a.m., 3½ and 10 p.m., and Sundays only at 10 p.m.—being a continuation of the line from New York. 25tf

WESTERN RAILROAD.—ON AND After Monday, April 5, 1847, the passenger



trains will leave daily, Sundays excepted, as follows:

Boston at 8 a. m. and 4 p. m. for Albany.
Albany at 7 1-4 a. m. and 5 p. m. for Boston.
Springfield at 8 1-2 a. m. and 1 p. m. for Albany
Springfield at 8 1-2 a. m. and 1 1-2 and 3 p. m. (or on arrival of the train from New York) for Boston.

Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveller, New York, or Champion. Returning, leaves New York at 6 1-4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at 4 p. m., and arrives in New York at 5 a. m.

Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p.m., Springfield next morning at 8 1-2, and arrive in Albany at 1 1-2 p.m.

The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7½ a.m. and 7 p.m.

For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1-4 a.m., 1 and 3 p.m., and passengers proceed directly on to Brattleboro', Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r.
C. A. SEAD, Agent, 27 State street, Boston.

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in *eleven*, Petersburg in *thirteen and a half hours*, and Charleston, S. C., in *two days* from Baltimore.

Fare from Baltimore to Charleston.....$21 00
" " " Richmond..... 6 60

For Tickets, or further information, apply at the *Southern Ticket Office*, adjoining the *Washington Railroad Office*, Pratt street, Baltimore, to
1y14 STOCTON & FALLS, Agents.

NEW YORK AND ERIE RAILROAD LINE SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M.

Fare between New York and Otisville, $1 50; way-fare in proportion.

FOR MILK—Leave Otisville at 5½ o'clock, morning and evening.

FOR FREIGHT—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

24tf H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY. Fall and Winter Arrangement, 1847. On and after Monday, September 20th, until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a.m. Upward train arrives at Springfield at 2½ p.m. Downward train arrives at Cincinnati at 10½ a.m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, is 32 hours. Distance from Cincinnati to Springfield by railroad.....84 miles.

From Springfield to Bellefontaine by stage, over a good Summer road.....32 "

From Bellefontaine to Sandusky city by railroad.....102 "

FARE—From Cincinnati to Lebanon....$1 00
" " " Xenia..... 1 50
" " " Springfield.. 2 00
" " " Columbus... 4 00
" " " Sundusky city 7 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every $500 in value over that amount.

47tf W. H. CLEMENT, *Sup't.*

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at.....9 a.m. and 3½ p.m.
Arrives at.....9 a.m. and 6½ p.m.
Leaves York at.....5 a.m. and 3 p.m.
Arrives at.....12½ p.m. and 8 p.m.
Leaves York for Columbia at..1½ p.m. and 8 a.m.
Leaves Columbia for York at..8 a.m. and 2 p.m.

FARE.

Fare to York.....$1 50
" Wrightsville..... 2 00
" Columbia..... 2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg.....$9
Or via Lancaster by railroad.....10
Through tickets to Harrisburg or Gettysburg.. 3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at.....5½ p.m.
Returning, leaves Owing's Mills at.....7 a.m.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above. 351y

CENTRAL AND MACON AND WESTern Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlaniic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20 pr. 100 lbs.	35
Crockery, per cubic foot	0 15 "	" 35
Molasses and Oil, per hhd., (smaller casks in proportion).	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price, Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*
Savannah, Aug. 15th, 1846. 1y34

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry — with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally... 50 cts. per hundred.
On measurement goods..... 13 cts. per cubic ft.
On brls. wet (except molasses and oil).....$1 50 per barrel.
On brls. dry (except lime)... 80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons.....$5 00 per hhd.
On molasses and oil.....$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
y40 Gen'l. Sup't. Transportation.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily.....$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia..... 22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

r25 JOHN KING, Jr, *Agent.*

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.
Atlanta, Georgia, April 16th, 1846. 1y1

PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for 1847.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville,	92	$3·50 and	$3·00
" " Reading,	58	2·25 and	1·90
" Pottsville "	34	1·40 and	1·20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1847.

Summer Arrangement.

Philadelphia for Baltimore...8 a.m. and 10 p.m.
Baltimore for Philadelphia...9 a.m. and 8 p.m.
Connecting with Mail Lines North, South & West.

On Sundays, only the 10 P. M. Lines run.

The Boat Lines, via Newcastle & Frenchtown R.R.
Leave Philadelphia at 3½ p.m. } No line on Sun-
Leave Baltimore at 3 p.m. } day.

Accommodation Trains between Philadelphia & Wilmington.—Philadelphia to Wilmington, 8 a.m., *mail*, 12½ p.m., 4 p.m., 7 p.m., 10 p.m. *mail*. Wilmington to Philadelphia, 7 a.m., 1 p.m., *mail*, 4½ p. m., 7 p.m., 12½ a.m., *night mail*.

J. R. TRIMBLE,
2tf *Engineer and General Superintendent.*

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—39 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton. 271 miles.	Between Charleston and Dalton. 408 miles.
1st class.	Boxes of Hats, Bonnets, and Furnature, per cubic foot.....	$0 18	$0 28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.....	0 40	0 65
	Cotton, per 100 lbs.....	0 45	0 7
	Molasses, per hogshead.	8 50	13 50
	" " barrel....	2 50	4 25
	Salt per bushel.....	0 18	
	Salt per Liverpool sack..	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows...	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Dalton.

F. C. ARMS,
Sup't. of Transportation.

Augusta, Ga., *July* 15, 1847. 44·1y

RATES OF FREIGHT

On CHANDLER'S Through Transportation Line, between Charleston, S. C., or Savannah, Ga., and Decatur, Ala., and Knoxville, Tenn., and all intermediate points on the Tennessee River, viz:

Between Macon	and Decatur and immediate points.	0 22½		1 54	1 05		0 81
		0 22½					0 86
	and Knoxville & intermediate points.	0 22½		1 54	1 10	0 76	
	and Chattanooga.					0 61	
Between Augusta	and Decatur and intermediate points.	$0 24		1 70	1 15		0 85
		$0 24					0 90
	and Knoxville & intermediate points.	$0 24		1 70	1 20	0 80	
	and Chattanooga.					0 65	
Between Charleston or Savannah	and Decatur and intermediate points.	$0 32		2 20	1 35		1 05
		$0 32					1 10
	and Knoxville & intermediate points.	$0 32		2 20	1 40	1 00	
	and Chattanooga.					$0 85	

1st class.	Boxes of Hats, Bonnets and Furniture per foot.....
2d class.	Boxes and Bales of Dry Goods, Shoes, Saddlery, Glass, Paints, Oils, (in cans) Drugs, Confectionaries, Shovels, Spades, Scythes, Smiths' Bellows, Baskets, Tubs, Sifters, Brooms and other light articles, per 100 lbs..
3d class.	Molasses, Sugar, Coffee, Liquor, Bagging, Rope, Cheese, Tobacco, Leather, Feathers, Hides, Wool, Copper, Tin, Sheet-iron, Nails, Casks, or Crates of Crockery, Hardware, and other heavy articles not enumerated below.
4th class.	Flour, Bacon, (in casks or boxes) Pork, Beef, Lard, Tallow, Butter, Beeswax, Bales of Rags, Ginseng, Green and Dried Fruit, (in casks or sacks) Pig-iron and Linseed Oil, per 100 lbs.....
Cotton.	Per 100 lbs.....

Merchandize shipped from any of the northern ports, must be consigned to R. R. AGENT, CHARLESTON, S. C., or R. R. AGENT, SAVANNAH, GA.: and every package must be marked, care of B. CHANDLER, Chattanooga.

Charges will accompany the goods, and be collected by the boats on the Tennessee river, when delivered to the owner or consignee

No preference in the way of despatch, will be given to any produce intended for their line, but each lot will be sent off as it is received.

The warehouse of the undersigned will be enlarged during the summer, and an apparatus attached for hoisting or lowering freight to the river, without soil or injury.

He will have a train of wagons under his entire control, sufficient to conduct the fall business with great despatch.

B. CHANDLER.
Chattanooga, Tenn., July 1, 1847.

REGULAR RATES BETWEEN ATLANTA AND CHARLESTON OR SAVANNAH.

First class, per foot.....	$0 20
Second class, per 100 lbs.....	1 20
Cotton, per 100 lbs.....	0 55
Third class, per 100 lbs.....	0 60
Fourth class, per 100 lbs.....	0 50